November 2012 Vol. 23 Iss. 11

Personal Tech
Maximize Your Inkjet Cartridge Yields

Business Tech
Promote Your Business With Google+

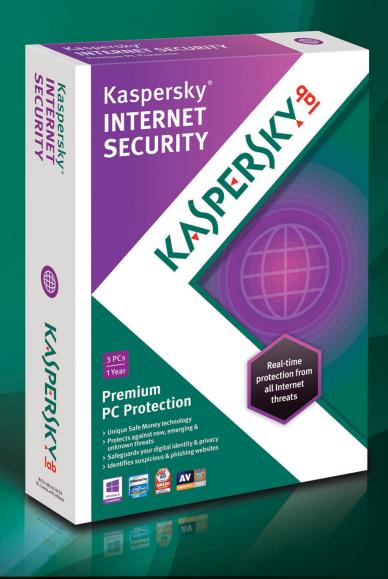
Premium Protection For Your Money, Your Identity & Your Privacy

# Kaspersky<sup>®</sup> INTERNET SECURITY



Safe Money Technology From Kaspersky® Safeguards All Your Financial Transactions.





# RELAX.

# Trend Micro™ Makes it Easy To Safeguard Your Digital Life.

Your Devices. Your Privacy. Your Data. Your Family.

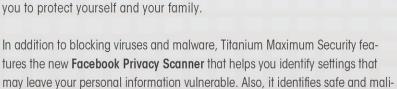




#### **KEY BENEFITS**

- · Blocks viruses, malware, and malicious links shared through email and IM
- Identifies safe and malicious search results links in Chrome, Internet Explorer, and Firefox
- · Identifies safe and malicious links in popular social networking sites like Facebook, Twitter, Google+, LinkedIn, and Pinterest
- Identifies settings that may leave your personal information vulnerable with the new Facebook Privacy Scanner
- Helps keep kids safe online with customizable parental controls
- Protects your data from loss or theft with tools that include Secure Erase file shredder, Trend Micro™ Vault with remote file lock, and a 5 GB Trend Micro™ SafeSync™ account to protect, access, and share your files
- · Is easy-to-install and has friendly interface
- · Windows 8 compatible





Trend Micro™ Titanium™ Maximum Security is all-in-one, easy-to-use

protection for everything you and your family do online—email, socialize,

We go to great lengths to identify Internet threats and then we create prod-

ucts like Trend Micro™ Titanium™ security solutions that make it easy for

bank, browse, shop, and more.

tures the new Facebook Privacy Scanner that helps you identify settings that may leave your personal information vulnerable. Also, it identifies safe and malicious links in search results as well as in popular social networking sites like Facebook, Twitter, Google+, LinkedIn, and Pinterest.





Volume 23 . November 2012 . Issue 11

#### On The Cover LA PERICE! Kaspersky Kaspersky® Internet Security INTERNET If you're looking for premium SECURITY protection for your identity and your privacy, Kaspersky Internet Security can provide it. Kaspersky's Safe Money Technology even safeguards your financial transactions so you can feel secure when buying or selling online. KASPERSKYB Premium PC Protection

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# Technology News



#### **BOOMERS BUY & USE TECH**

Nielsen and BoomAgers released a report on Baby Boomers, the generation born between 1946 and 1964, and their buying power. As of August they made up 44% of the U.S. population, but hold 70% of the nation's disposable income. This group also purchases 49% of the consumerpackaged goods. Some 40% of all customers who pay for wireless service are Baby Boomers and Boomers also represent 41% of those who buy Apple computers. Nielsen and BoomAgers also found that Boomers make up roughly one-third of all online and social media users.

#### SOCIAL MEDIA OBJECTIVES FOR BUSINESSES

A report from social marketing software maker Awareness found that businesses are branching out into social media for a variety of reasons. About 78% of those surveyed said that one of their biggest goals for social media is to better engage customers, while 51% rated revenue generation as the top objective for social media. Better customer experience, increased thought leadership, and operational efficiency were the number three, four, and five responses, with 47%, 41%, and 14% of the respondents choosing those options.



Scanning this QR code will take vou to the Smart Computing website.



#### **QR CODES EXPLODE**

According to a new report from ScanLife, people are scanning more QR codes than ever before. In June 2012, the latest month included in the report, ScanLife reported a record 5.3 million QR code scans. In Q2 2012, a single QR Code campaign racked up 2.05 million scans, while in Q2 2011, the largest single campaign only scored 30,000 scans. 53% of the scans are coming from Android devices, 43% from iOS devices, and BlackBerry and Symbian devices each accounted for 2% of the QR Code scans recorded. The firm also reports that 69% of the people who scan QR codes are male and 31% are female.









A new report from Gartner attempts to forecast the future of the mobile apps market. According to the analysts, 89% of all app store downloads in 2012 will have been free. By the end of this year, smartphone users will have downloaded more than 45.6 billion apps. Gartner sees a tidal wave of free app downloads coming, as the percentage of all app downloads adds about one percent per year until 2016, when 93% of all downloads will have been of free apps. Of the apps consumers are buying, however, 90% of them cost less than \$3, and 96% of the paid apps downloaded in 2016 will cost between 99 cents and \$2.99.

#### IN-STORE SMARTPHONE RESEARCH

Smartphone users are fond of using their devices in-store to help them make purchasing decisions. Vibes, a mobile marketing solutions provider, reports



that 48% of those who have scanned or texted for product details while in-store ended up feeling better about the purchase they made, while 15% said the information they found dissuaded them from making a purchase, 14% said they made a purchase they didn't intend, and 13% said the information they found with their smartphones had no impact on their purchasing decision.



#### A BILLION SMARTPHONES

The analysts at NPD DisplaySearch expect smartphone shipments in 2016 to surpass one billion. The firm calculates that 567 million smartphones will ship in 2012; those numbers must nearly double to reach NPD Display Search's estimated target. The impressive figure also takes into account the 2012 forecast downgrade for new smartphone purchases, from around 225 million to 177 million. Researchers expect users will begin replacing their phones as new phones come out.

# Business News



 BizBuySell saw an uptick in small business sales over the first half of 2012.

#### SMALL BUSINESS SALES

About 3,300 small businesses were sold in the first half of 2012, a number that exceeded sales during the first half of 2011 by 1.2%, according to BizBuySell.com. The report did note that small business sales declined by 1.6% over the second quarter of 2012 against the same period last year, so there was a small blip in the marketplace. Overall, the market saw 1,603 closed transactions in the second quarter of 2012. The study also indicates that small businesses appear to be doing better than in 2011, as median revenues increased from \$340,000 to \$360,000.

#### HUB RAIFIGH

This new flexible workspace in Raleigh, North Carolina provides 18 fullyequipped workspaces for full-time or part-time workers. The HUB Raleigh also offers six private suites designed for growing companies. As for amenities, you'll find a receptionist, a printer/copier, a kitchen, a full bar with free coffee and beer, and fast Wi-Fi. Those regularly meeting with clients will like the fact that HUB Raleigh includes two huddle rooms, a conference room, a phone booth for private calls, and an outdoor terrace.





#### JOB CREATION

Intuit Payroll indicates that small businesses in the United States created around 30,000 new jobs in the month of August. Additionally, nationwide employment at small businesses grew by 0.16% during the month. In total, the Intuit Payroll index indicates that 750,000 new small business jobs have been created since October 2009. Small business employees experienced a 0.08% increase in compensation from July 2012 to August 2012. The index data comes from the employment activity in small businesses found in Intuit's Online Payroll customer base.



#### A THIRD PLACE TO WORK

Mobile employees aren't limited to working merely at the office and home. Your Office Agent (<a href="www.yourofficeagent.com">www.yourofficeagent.com</a>) is an online service that works with you to find the best leased office and workspace for your needs, and the company has recently added "third place" locations to inform you of areas where you can work away from the home and office, such as malls, libraries, parks, and coffee shops. Your Office Agent will even allow third-party locations to add themselves to the service's basic Open Source database for a limited time at no cost. Searches on the website are free.

#### SMALL BUSINESS LOANS

NADCO (National Association of Development Companies) says that September produced the largest number of loans to small businesses in the program's 26-year history. NADCO indicated that its SBA 504 loan program should reach \$495 million in 20-year debentures and \$53.1 million in 10-year debentures, for a total of almost \$550 million in



NADCO (National Association of Development Companies) helps small businesses find long-term loans.

loans. The long-term loans are designed to provide small businesses with financing for capital assets that will help grow the company, such as real estate and equipment. Over the last 25 years, 130,000 businesses have received SBA 504 loans, totalling more than \$100 billion in financing.

#### SMALL BUSINESS EVENTS

Small business events give you a chance to learn critical management skills and network with professionals in related fields Don't miss these upcoming opportunities If you would like to see your event here, email editor@smartcomputing.com with the subject line: Small Business Event.

# Doing Business With The Federal Government

ATLANTA, Ga. | Nov. 1 http://events.sba.gov

#### SMALL BUSINESS BANKING CONFERENCE

BOCA RATON, FLA. | NOVEMBER 7-9 www.americanbanker.com

#### SMALL BUSINESS EXPO

Los Angeles Calif. | November 8 www.thesmallbusinessexpo.com

#### GLOBAL ENTREPRENEURSHIP WEEK

NOVEMBER 12-18

http://www.unleashingideas.org/

### SBIR/STTR 2012 NATIONAL CONFERENCE: CRACK THE CODE

PORTLAND, ORE. | NOVEMBER 13-15 www.oregonsbir.com

# WINNING FEDERAL CONTRACTS FOR YOUR SMALL BUSINESS

Oмана, Ne. | November 15 http://events.sba.gov

#### New Media Expo

Las Vegas, Nev | January 6-8, 2013 http://nmxlive.com/2013-lv/

#### AFFILIATE SUMMIT WEST 2013

Las Vegas, Nev | January 13-15, 2013 http://www.affiliatesummit.com

# Small Business Resources

The Web has a trove of resources for SOHOs (small and home offices) and small businesses—if you know where to look. Find an association that can help you meet your goals; get information from the government about loans, grants, and taxes; and stay up-to-date with the best small business newsletters and blogs. If you have a pressing question, pose it on a forum to see what your peers have to say.



#### Associations & SUPPORT

Better Business Bureau www.bbb.org (703) 276-0100 4200 Wilson Blvd. STE 800 Arlington, VA 22203-1838

#### Main Street Alliance (MSA)

mainstreetalliance.org info@mainstreetalliance (603) 831-1835 3518 S. Edmunds St. Seattle, WA 98118

#### **National Federation of Independent Businesses** (NFIB)

www.nfib.com (800) 634-2669 (615) 872-5800 53 Century Blvd. STE 250 Nashville, TN 37214

#### **National Small Business** Association (NSBA)

nsba.biz (202) 293-8830 1156 15th St., STE 1100 Washington, DC 20005

#### **SCORE**

www.score.org (800) 634-0245 (703) 487-3612 1175 Herndon Pkwy **STE 900** Herndon, VA 20170

#### **Small Business Development Centers** Network (SBDCNET)

www.sbdcnet.org (800) 689-1912 501 W. Durango Blvd. San Antonio, TX 78207



#### BLOGS

Signal vs. Noise 37signals.com/svn/posts

#### **Small Business Search** Marketing

www.smallbusinesssem .com

#### **Small Biz Bee**

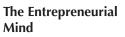
smallbizbee.com

#### **Small Business Trends**

smallbiztrends.com

#### The Small Business Blog

www.sme-blog.com



www.drjeffcornwall.com



#### **FORUMS**

#### **Small Business** Administration Community

www.sba.gov /community

#### **The Small Business Community Forums**

www.smallbusiness forums.org

#### **Small Business Ideas Forum**

www.smallbusinessbrief .com/forum

#### **The Young Entrepreneur**

www.youngentrepreneur .com/forum



#### OVERNMENT

#### Grants.gov

#### **House Committee On Small Business**

smallbusiness.house.gov

**BLOG** 

#### **Small Business and Self-Employed Tax Center**

www.irs.gov/businesses /small

#### **Small Business** Administration (SBA)

sba.gov

#### U.S. Copyright Office copyright.gov

#### **U.S. Department of Labor** dol.gov

#### U.S. Senate Committee on Small Business & **Entrepreneurship**

sbc.senate.gov

# Small Business **Development Centers**

#### Assistance For Entrepreneurs

aven't the foggiest idea how to harness your entrepreneurial spirit, pull yourself anywhere using bootstraps, or think in or out of a box? Starting and running your own business is tough, but fortunately for prospective and current small business owners, SBDCs (Small Business Development Centers; asbdc-us.org) dispense with the clichés and offer training, counseling, and other assistance to help you craft your vision into a real-world success.

#### Run A Small Business

Pooling resources from federal, state, and local governments, as well as the private sector and the educational community, The Association of Small Business Development Centers is truly a joint venture with a vested interest in fostering small business growth. For an overview of what the SBDC can offer you and your small business, visit bit.ly /dKYe2a. The SBA (Small Business Administration; www.sba.gov) is partnered with SBDCs.

#### Help On Your Turf

You may be surprised to learn that there's probably an SBDC branch nearby; there are locations in all 50 states, in the District of Columbia, Puerto Rico, and even in the U.S. territories. There are 63 nationwide Lead Small Business Development Centers coordinating program services for every sub-center and satellite location in each state. Centers are made up of directors, full-time staff members, and various part-time staff and volunteers.

The best way to contact your nearest SBDC is to visit the Association of Small Business Development Centers' Web site (asbdc-us. org), input your ZIP code into the Find Your Nearest Small Business Development Center text box, and then click Go. The results page will highlight Lead Centers but rank centers in order of those closest to your location. Often, SBDCs partner with universities and colleges, and tend to be found on campuses across the country. On the search results page, you'll also find a link to the local office's Web page,

### Frequent Question

If you're like many other people starting a small business, funding is at the top of your mind. A common question that entrepreneurs have for SBDCs is: "Am I eligible for grant money?"

The answer depends on the nature of your business. Grants. gov (www.grants.gov) will give you a clear picture of your options before your visit to a Small Business Development Center.

email address, phone number, a fax number if available, and address.

#### The Closest Thing To A Free Lunch

The services offered may vary by location, but all SBDCs offer many services free of charge. Some typical services you can expect from your nearest SBDC include help with financial, marketing, production, organization, engineering, and technical problems and access to feasibility studies that can flesh out a fledgling business plan. Some SBDCs also offer affordable training seminars to help with various aspects of running a business. You can also rest assured that your business with the SBDC will remain confidential.

#### Women's Business Centers

The SBA offers WBCs (Women's Business Centers), which directly serve female entrepreneurs through nearly 100 educational centers nationwide. This organization strives to assist women in overcoming the hurdles they face in today's business environment by offering business management training and technical assistance to all women, with a special emphasis on economically or socially disadvantaged women. The services and training programs are also commonly offered in multiple languages to enable those who speak English as a second language or are still learning English. To find your nearest WBC, visit bit.ly/hs3st2.

#### Small Business, Big Payoff

Small business owners know that achieving success is about taking risks, innovating, and making tough decisions day in and day out. Thanks to the services offered at the SBA, SBDCs, and WBCs, you're not on your own.





# The New Kaspersky® Internet Security

Shop, Communicate, Download, Work & Play With Confidence

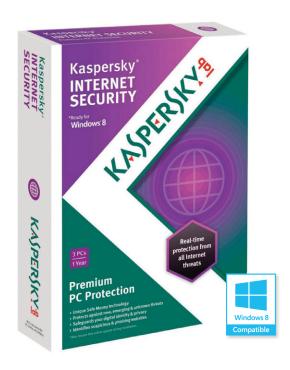
The fastest way to compromise your identity, download malware, or get attacked by cybercriminals is to let your guard down. Thankfully, Kaspersky Internet Security is always on duty.

#### Buy With Confidence

You already know there are risks when shopping online, but with Kaspersky Internet Security, you can shop, bank, and complete all your financial transactions online with confidence. Every time you shop online, use a payment system such as PayPal or Web-Money, and arrive at a banking or e-commerce Web page, Kaspersky's Safe Money technology automatically checks the Web address against a database of safe and known sites, verifies the site's authenticity, determines if your PC may be vulnerable to online banking exploits, and offers to launch the site in a special Safe Money secure browser, which adds even more security to your online transactions.

#### Your Windows 8 Security Solution

In addition to supporting existing Windows operating systems, Kaspersky Internet Security has also been optimized and certified to work with Windows 8, Microsoft's latest operating system. When upgrading your existing PC or buying a new one with Windows 8, you still need a full featured security suite, like Kaspersky, to stay one step ahead of threats and cyber criminals. Kaspersky Lab has over 15 years of industry-leading experience, and Kaspersky Internet Security recently received perfect scores for malware detection and removal from AV-Test.org. In addi-



tion, Kaspersky products are specifically designed to give premium security performance that doesn't slow your PC down or tie up system resources. Finally, Kaspersky Internet Security delivers layers of protection from all Internet threats, not just viruses, to ensure that you and your family are safe online to do whatever you want.

#### Great With Windows 8

New Win8 users will find that Kaspersky has been designed to take advantage of all the key new features

of the OS. You can download the free Kaspersky Now Win8 app, which uses Live Tiles to display the current protection status of your PC and to quickly launch common security tasks. Kaspersky also automatically scans and secures the apps you download from the Windows Store and supports automatic maintenance to protect your system and applications. No matter you operating system, Kaspersky Internet Security is designed to allow you to use your PC to the fullest without fear from cyber threats.



# Peace Of Mind You Can Count On

# Kaspersky Internet Security

Choose Kaspersky Anti-Virus for essential protection, or Kaspersky Internet Security for premium protection with added features. Protects multiple computers with one purchase.





	Kaspersky	Kaspersky
<b>Key Features</b>	Internet Security	Anti-Virus

Core Protection		
Real-time Protection from new and emerging viruses, spyware, and more	<b>√</b>	<b>✓</b>
Proactive Detection of unknown malware and rollback of harmful activity	<b>√</b>	<b>✓</b>
Instant Safety Checks for files and websites	<b>√</b>	<b>✓</b>
Automatic Exploit Protection ensures vulnerabilities won't compromise your PC	<b>√</b>	<b>✓</b>
Advanced Protection		
Safe Money protects your data during online financial transactions	<b>√</b>	
Two-way Firewall blocks hacker attacks	<b>√</b>	
Application Control prevents dangerous applications from harming your system	<b>√</b>	
Safe Surf blocks dangerous websites	<b>√</b>	<b>√</b>
Anti-Banner blocks dangerous and annoying banner ads	<b>√</b>	
Robust Anti-Spam protection quickly recognizes and blocks new spam	<b>√</b>	
Advanced Parental Control keep your kids safe and responsible online	<b>√</b>	
Identity Protection		
Anti-Phishing safeguards your digital identity	<b>√</b>	<b>√</b>
Quick Launch of Virtual Keyboard defeats keyloggers and screen capture malware	<b>√</b>	
Secure Keyboard protects personal data entered via a physical keyboard	<b>√</b>	
Performance		
iChecker/iSwift provide intelligent scanning for maximum performance	<b>√</b>	<b>✓</b>
Smart Updates reduce network traffic and resource use	<b>√</b>	<b>√</b>
Gamer Mode for an uninterrupted gaming experience	<b>√</b>	<b>√</b>
Customer Service & Technical Support		
Free technical support and 24/7 online sales support via phone and email	1	<b>✓</b>



# The Intel®-Powered Ultrabook™

Ultra Responsive, Ultra Sleek & More Secure

Traditionally, if you wanted a laptop compact enough to take with you wherever you went, you needed to sacrifice some under-the-hood performance. If you wanted a high-performance model, on the other hand, your only options would have been unwieldy lap-crushers, incapable of lasting more than a few hours away from an outlet. But the introduction of the Intel®-inspired Ultrabook™ changed everything.



#### Features To Power Your **Small Business**

The Intel®-inspired Ultrabook $^{\text{TM}}$  is all about making sure you can accomplish the same tasks you perform on your desktop at home or in the office wherever you happen to be. Frequent travelers love the UItrabook<sup>TM</sup> device's impressive battery life, between five to seven hours or more. Having an Ultrabook™ that's less than an inch thick also makes it easy to take it with you on the road, into the boardroom, or on to your next meeting.

Content creators, media enthusiasts, and the generally impatient all enjoy the Ultrabook™ systems' lightning-quick application launching, boot-up, and wake times. Ultrabook™ systems equipped with the latest Intel® Core i5 and i7 processors offer Turbo Boost Technology, boosting performance when you need it most.

Securing your identity via two-factor authentication is an Ultrabook™ priority, and Intel® Anti-Theft Technology lets you disable your lost or stolen Ultrabook™ from anywhere in the world.

The Ultrabook™ platform is also affordable, with many models priced in the \$1,000 range. An Ultrabook™ is the ideal portable computing device: It's powerful, responsive, and thin, and it has a battery that works as hard as you do.

# Inspired By Intel®: The Ultrabook<sup>TM</sup>

The Ultrabook™ stands head and shoulders above traditional laptops in a number of key ways:

- More secure with Intel Anti-Theft and Identity Protection Technology
- Ultra-responsive for fast wake, boot-up, and application launching
- Battery life that lets you work on your terms
- Ultra-sleek, light design for the ultimate in portability



# Ultrabook™ vs. Laptop

### Tradition Makes Way For Power & Innovation

If you're in the market for a new mobile computing platform, you'll note that the Ultrabook<sup>TM</sup> and more traditional laptops have a few things in common, but many more differences. Here's a rundown of how they compare in home and business situations.

Ult	rabooks™ & Laptops Head-To-Head	No-compromise performance and responsiveness in an ultra-sleek design.	Some features, moderate performance, and built-in graphics in a traditional design.
1"	Always less than an inch thick	<b>✓</b>	
也	Wakes up in a flash	✓	
	Battery life that lasts for 5 to 7 hours or more	✓	
47	Faster access to your favorite applications	✓	
	Intel® HD Graphics for a seamless, stunning graphical experience	✓	On some models
<b>Jun</b>	Extra performance on demand <sup>1</sup>	On Intel <sup>®</sup> Core <sup>™</sup> i5 and i7 processors	On Intel <sup>®</sup> Core <sup>™</sup> i5 and i7 processors
<b>A</b>	Supports the programs you know and love	<b>✓</b>	✓

<sup>1</sup> Requires a system with Intel® Turbo Boost Technology, Consult your PC manufacturer. Performance varies depending on hardware, software, and system configuration. For more information, visit http://www.intel.com/go/turbo.

### Intel® & Windows 8: The Optimum Computing Experience

Here are three reasons you want Intel® inside your new Windows 8 system:

- All of your favorite applications, as well as new ones from the Windows Store, will just work.
- The latest Intel-powered devices can handle your personal and professional lifestyle.
- Intel<sup>®</sup> Ultrabooks<sup>™</sup> and tablets give you nothing but the whole Windows experience.

Ultrabook, Intel, Intel Logo, Intel Core, are trademarks of Intel Corporation in the U.S. and/or other countries.



# Intel® & Windows 8: The Ultimate Experience

Mobile Solutions Combine Ultrabooks™ With The Power Of Windows 8

Intel®, in combination with Microsoft's latest operating system, Windows 8, offers a computing experience that will change how you use technology in your business and personal life. Intel® is technology you trust, and now it's available in more devices than ever.

#### More Mobile Options

To get the most out of your Windows 8 computing experience, look for Intel® technology inside a variety of product types. With these, you'll find the things you do on a computer are faster and more visual, immersive, and portable than ever before.

#### Intel® Inside Tablets

A wide variety of tablets feature the Intel® Atom™ processor, designed to be energy-efficient enough to consume very little wattage, even under the crushing weight of your multitasking tendencies. And because it's an Intel® processor, you know it'll be able to handle all the applications you currently run, as well as those you will be able to download from the Windows Store in Windows 8.

#### Intel<sup>®</sup> Inside Laptops

Windows 8 is available on a number of laptops, and when you select one with a 3rd generation Intel® Core processor, then you know that you're getting built-in visuals and an energy-efficient yet powerful package. Laptops with Intel® Core i5 and i7 processors feature Turbo Boost Technology 2.0, which boosts the laptop's performance when you need it most, so your work gets done on time, giving you more time to enjoy the fruits of your labor.



#### Intel® Inside The Ultrabook™

Intel-powered Window 8 tablets and laptops offer good performance and great value, but the Intel-inspired Ultrabook<sup>TM</sup> works with Windows 8 to provide ultra-portable power and an even greater number of comput-

ing possibilities, including fast wake up; flip, slider, and detachable touchscreens; long battery life; and featherweight ease of portability.

No matter how you decide to experience Windows 8, Intel® is the only way to make sure you're getting the best of what's next.

# Hardware Buyer's Guide

### Our Favorite Hardware Products

In this section, the Smart Computing team looks at what hardware is out there and makes sure you know about our favorites. Whether it's a computer or a printer, a solid state drive or an eReader, a display or a tablet—almost any type of hardware can show up on these pages. When it does, you know that our writers and editors have decided that this is a product you should know about.



We track down the best in hardware so that you don't have to.

www.HP.com

### Touchscreen access to Business Apps

# HP LaserJet Pro 200 color MFP M276nw

Streamline office tasks with a wireless-enabled color MFP that provides touchscreen access to business apps. Print from virtually anywhere with HP ePrint. Boost productivity with versatile scan, fax, and copy options.

- Install in only a few minutes—there's no CD required with HP Smart Install.
- Help save time and effort by scanning documents directly to a flash drive, email, network folder, or the Web.
- Print documents affordably. Get the same black cost per page as a black-only HP LaserJet printer.
- Benefit from reduced energy use with HP Auto-On/Auto-Off Technology.





#### Hardware

www.HP.com

### Versatile & Powerful

# OfficeJet PRO 8600 Plus e-All-in-One

Produce professional color for up to 50% lower cost per page than lasers\* and accelerate productivity with apps on the large touchscreen, networking options and versatile e-All-in-One performance.\*\*

- Professional color for up to 50% lower cost per page
- · All-in-one features let you easily print, copy, scan and fax everything you need for your home office or business.
- · Create borderless, double-sided flyers and brochures, plus print impressive business photos.





- \* Majority of color laser AiOs < US\$600, March 2011. For details: http://www.hp.com/go/officejet. OJ Pro ISO yield with highest-capacity cartridges based on continuous printing; see http://www.hp.com/go/learnaboutsupplies.
- \*\* Requires a wireless access point and an Internet connection to the printer. Services may require registration. App availability varies by country, language and agreements. For details, http://www.hp.com/go/eprintcenter.

www.HP.com

### Show-stopping performance. Standout design.

# HP ENVY dv6-7210us Notebook PC

Introducing the HP ENVY dv6 notebook. With a sleek, tapered metal design, it's easy to pick up. And with cool features like Beats Audio™ amplified by quad speakers and a subwoofer, it's tough to put down.

- Windows 8
- Store up to 186,000 photos, 167,000 tracks or 335 movies in HD with the 750GB hard drive.
- Live the ultimate video experience with a 15.6" diagonal HD\* display and VISION A8 Technology from AMD.
- · Deliver the best-sounding, richest audio on a PC with Beats Audio™, quad speakers and a built-in subwoofer.
- · Watch movies, record music and video, plus load apps with the SuperMulti DVD burner.\*\*





- \* High-definition (HD) content is required to view high definition images.
- \* Note that DVD-RAM cannot read or write to 2.6GB Single-Sided/5.2 GB Double-Sided Version 1.0 media. Intended for your original content and other lawful uses. Do not copy copyright-protected materials.

#### Hardware

www.HP.com

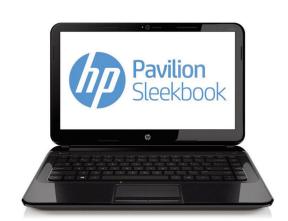
# Perfect for everyday everything.

# HP Pavilion Sleekbook 14-b010us

Meet the everyday notebook that's anything but ordinary. Get exclusive HP innovations designed for Windows 8. Enjoy long battery life to keep working or playing. At less than an inch thin and under four pounds\*, the HP Pavilion Sleekbook 14 is perfect for life on the go.

- · Windows 8.
- With HP ProtectSmart, your notebook's data stays safe from accidental bumps and bruises. It senses motion and plans ahead, so a single bump won't delete your entire digital life.
- HP TrueVision HD Webcam: Be your best virtual self. Sometimes only a face-to-face conversation will do.
- Store up to 116,000 photos, 105,000 tracks or 210 HD





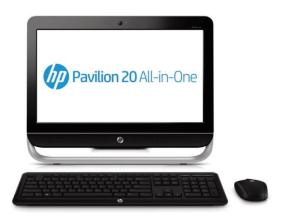
www.HP.com

# Everyday computing made simple

# HP Pavilion 20-b010 All-in-One PC

The HP Pavilion 20 All-in-One Desktop: life made simple with one plug and easy set up. This newly designed All-in-One desktop is the practical choice for someone needing just the right amount of technology without going overboard.

- Windows 8
- Set up your HP Pavilion 20 All-in-One with as little as one wire. No clutter. No mess. No stress.
- · Stunningly slim with an easel design proves the flexibility of this All-in-One desktop.
- Enjoy the view on a 20" HD\* display with up to a 25° tilt.





\*High-definition (HD) content is required to view high definition images

Hardware

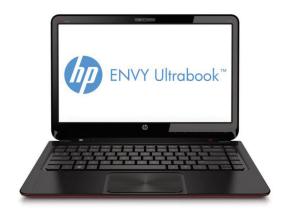
www.HP.com

# HP is the world's favorite PC

# ENVY Ultrabook<sup>™</sup> 4-1130us PC

The Ultrabook™ that's up for anything. Always on, ultrafast! It's the Ultrabook™ with Beats Audio™, a backlit keyboard and a soft-touch base that makes it easy to grab and go.

- Windows 8
- Thin and light, it's the only large screen Ultrabook™ with Beats Audio™ and a subwoofer.
- Slim and light enough to take anywhere with a dynamically tapered shape and soft-touch base.
- The only large screen Ultrabook™ with Beats Audio™ and a subwoofer.
- · Starts in seconds and picks up where you left off.







# Windows 8 Is **Better With HP**

Windows 8 is chock full of great new features that make our computers easier to use, and HP has added even more tools to further enhance the Windows 8 experience in its lineup of notebooks, ultrabooks, and all-in-one PCs.

nd HP even helps you get started using Windows 8 by providing a library of helpful tips built right into your new HP computer.

#### Get Connected

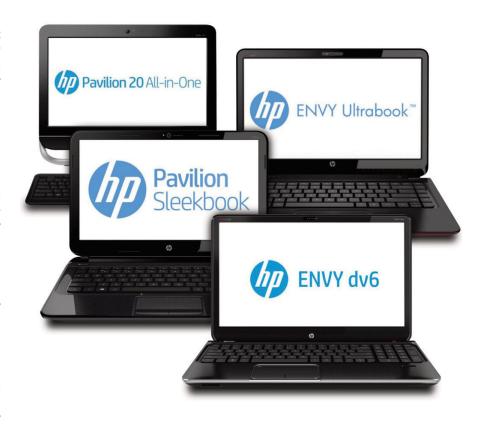
Designed to work seamlessly in Windows 8, HP Connected Apps give you an easy way to access and stream your personal music, photos, and other files—even if they're stored on a different computer or device. And speaking of music and video, HP's DV6 notebook is ideal as a portable entertainment system, featuring Beats Audio backed up by guad speakers and a subwoofer for high-quality sound.

#### Touch Innovations

HP's ENVY 4 Ultrabook features an ImagePad, a touchpad that supports multi-touch gestures, such as a quick flick to the left or right for scrolling. You'll also enjoy exceptionally precise control, thanks to the HD image sensor built in to the ImagePad. The ENVY 4 Ultrabook also offers smart technology that ensures your emails and apps are always up-to-date, even when the laptop is asleep.

#### **Utility Center**

HP includes a variety of software that improves your PC experience, and all of the tools are available in HP's Utility Center For Windows 8. Among many others, these include



HP Coolsense (which keeps your computer cool when you run taxing applications), HP ProtectSmart (keeps your data safe), and Beats Audio (provides great sound and rich audio). The Pavilion Sleekbook 14's durability and reliability are enhanced by the Utility Center, which make it a great Ultrabook for those with everyday computing needs.

### A Stunning Windows 8 All-In-One

The HP Pavilion 20 offers you an elegant, slim design that's optimized for use with Windows 8. And it's combined with HP's innovative additions to offer you a powerful, easy-to-use PC.

# AMD & Windows 8

### Fast & Fluid Computing

Windows 8 is set to revolutionize how we use our computers, and PCs built with AMD technology are uniquely designed to improve the Windows 8 experience.

ith computers, high performance comes from two key places: the central processing unit (CPU) and the graphics processing unit (GPU). The AMD Accelerated Processing Unit (APU) is a new kind of processor that combines the two on one piece of silicon. Today, only AMD has both the CPU and GPU technology leadership necessary to successfully bring this gamechanging processor to reality, drastically improving everyday PC use and paving the way for new applications and features such as gesture and facial recognition. The design of the APU is also ideal for Windows 8, as the new operating system can take full advantage of the processor's capabilities, resulting in a better overall computing experience.

#### Performance Benefits

With a Windows 8 PC featuring AMD hardware, the PC will boot up and resume work in seconds with AMD Start Now Technology. AMD App Acceleration lets you do more with apps and games in Windows 8 by utilizing the APU to improve the playback of streaming video, deliver stutter-free HD quality, and smoothly run multiple applications at maximum speed.

#### Convenience

The AMD APU is designed to be compatible with the most popular applications and devices you al-



You can expect a computer with an AMD A-series APU to boot in as few as 10 seconds, while it should wake from sleep mode in as few as two seconds<sup>1</sup>.



Apps powered by AMD's multi-core APUs help improve your productivity, as touchscreen apps glide smoothly across the screen.

ready use, which will help aid in the transition to Windows 8. And AMD AppZone, an online showcase for applications and games accelerated by AMD technology, allows many Android-based apps to run on Windows 8, which means you'll be able to select from the half million Android apps to add great new programs to your PC. Android apps will also be able sync between your phone, tablet, and PC, and at launch, 50 free apps will be available and you'll find hundreds of apps and

games that are accelerated by AMD technology.

#### Graphics

Windows 8 delivers opportunities for enhanced text, as well as 2D and 3D video quality. The AMD APU can reduce the time it takes for text to render when scrolling, as well as to display complex graphs and HD video. In short, it means less waiting and improved detail. AMD Eyefinity Technology also gives you the capability to span Windows 8 across multiple displays.

<sup>1</sup> Testing conducted by AMD Performance Labs as of 2/17/2012 on a "Pumori" reference system configured with an AMD A6-4400M APU with AMD RadeonTM HD 7520G Graphics, 4GB DDR3-1600 and an Intel 510 Series 120GB SSD running Windows® 7 SP1 64bit. The tested platform was able power-on to the Windows desktop in 10.3 seconds and resume from sleep mode in 1.73 seconds. Actual time to power-on to desktop and actual time to resume will vary based on operating system, APU model, driver, disk drive and memory speed. TRN-97 & TRN-27

www.epson.com

# Wireless, Ultraportable & Ultrabright

# PowerLite® 1761W Wireless WXGA 3LCD Projector



The days of lugging around a heavy, bulky projector are over. Epson's PowerLite 1761W provides you with a full-featured, bright projector that's as thin as a notebook and weighs only 3.7 pounds. Add in PowerLite 1761W's dazzling crisp detail WXGA widescreen resolution, and you've got the perfect projector for use in the office, clients' boardrooms, and classrooms.

- 3x Brighter Colors with Epson®1
- · Color Brightness: 2600 lumens
- White Brightness: 2600 lumens
- Lightweight and travel friendly thin as a laptop; weighs just 3.7 pounds
- **High-definition WXGA** (1,280 x 800) resolution and a 16:10 aspect ratio allow you to project HD widescreen content as well as media from widescreen notebooks
- · Easy Wireless: High-speed LAN module for easy connection to notebooks, tablets or smartphones
- Project from iPad®, iPhone®, Android smartphones and tablets with the Free Epson iProjection™ App
- Versatile connectivity: HDMI all-digital connectivity; VGA; USB Plug 'n Play; Wireless
- · MAC and PC compatible out of the box with USB Plug 'n Play instant set-up
- Automatic vertical keystone correction easily achieves a perfect rectangular image
- · Convenient Instant Off®/On control
- Carrying case and wireless remote included



<sup>1</sup> Compared to leading 1-chip DLP business and education projectors 5000 lumens or less based on NPD data, July 2011 through June 2012. Color brightness (color light output) measured in accordance with IDMS 15.4. Color brightness will vary depending on usage conditions.

### The Latest Ultrabook™

# Lenovo® IdeaPad®U510

The differences between an Ultrabook and a traditional notebook are subtle but important. The Lenovo® IdeaPad® U510 will improve your on-the-road productivity, thanks to superior processing power, longer battery life, and a sleek, thin design.

- 3rd-generation Intel<sup>®</sup> Core<sup>™</sup> i5-3317U processor
- Equipped with Windows® 8
- 15.6-inch HD LED-backlit display
- 750GB SATA hard drive, plus a 24GB SSD
- Dolby® Home Theater V4 audio enhancement with DVD drive
- 6GB-DDR3 memory





Ultrabook™. Inspired by Intel®. Powered by Intel® Core™ i5 Processor.

Hardware

www.Lenovo.com

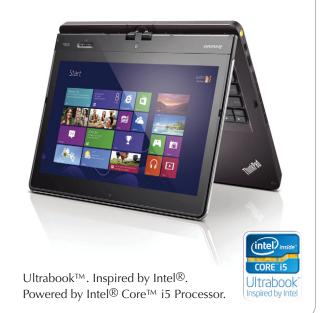
# Mobility With A Twist

# Lenovo® ThinkPad® Twist

The ThinkPad S230u Twist Convertible Ultrabook™ offers four awesome modes in one incredible device. With its multiple modes—laptop, tablet, stand and tent—it provides flexibility between work and play, making it perfect for students and professionals who are looking to get things done.

- 3rd-generation Intel<sup>®</sup> Core<sup>™</sup> i5-3317U processor
- Touch, type or click optimized for Windows® 8
- 12.5 inch IPS HD display with Gorilla® glass
- 500GB SATA hard drive, plus a 24GB SSD
- · Super slim design; .78 inches thin
- 4GB-DDR3 memory
- Ultrabook Inspired by Intel







# The Printer Reinvented

#### The Ultimate Combination Of Business Features

Thanks to its innovative Landscape Print Technology, Brother's latest Business Smart™ series of color inkjet all-in-ones is like nothing you've ever seen.

he Business Smart™ MFC-J4510DW differs from other currently available color inkiet all-in-ones in that it stores and feeds paper in a landscape orientation, rather than portrait. In practice, Brother's novel approach makes a big difference in all the right ways.

#### Speed Is King

One of the most obvious advantages of a printer that prints in a landscape orientation is speed. This printer produces a fastest-in-class<sup>1</sup> 20 ppm (page per minute) black and 18ppm color<sup>2</sup>, based on the ISO (International Organization for Standardization) parameters.

#### A Pint-Sized Printer

The Landscape Print Technology of the MFC-J4510DW also enabled Brother's engineers to shrink the size of the printer considerably, up to a 35% smaller footprint versus competing machines<sup>1</sup>. And the printer can still print up to 11 x 17-inch sheets. Two-sided printing is also supported.

#### Print More For Less

Like many of Brother's printers, the MFC-J4510DW accepts super high-yield ink cartridges, so you can rely on it to cost-efficiently churn out page after page.

#### **Excellent Extras**

The Business Smart<sup>TM</sup> printers also feature a handful of extras that make



them handy for use in the home or office. The MFC-J4510DW lets you print over a wireless connection from your PC or mobile device. The printer is compatible with AirPrint™, Brother™ iPrint&Scan, Google Cloud Print™, Cortado Workplace, and WiFi Direct. The printer also supports wired Ethernet and 802.11b/g/n Wi-Fi connectivity. Like the rest of Brother's printers, the new Business Smart family printers come with a 2-year limited warranty and toll-free technical support for the life of the unit.

### Easy-To-Use TouchScreen

The large 3.7-inch color Touch-Screen Display and TouchPanel let users intuitively navigate the printer's basic and advanced functions with ease. It supports common TouchScreen gestures, including swiping, tapping, and dragging, so finding the function you need is easy and fun.



<sup>1</sup> Based on competing in-class inkjet models with an estimated street price under \$200. Competitive data gathered from manufacturer websites and third party industry sources (as of July 2012).

<sup>2</sup> PPM is based on printing in FAST mode and excludes printing of first page and will depend on a variety of factors. ISO print speed based on ISO/IEC 24734. See www.brother-usa.com/printspeed for details.

# Meet the new Windows.





### Make it yours.

Organize and customize your Start screen to make it home for the things you care about.

### Stay connected.

Sharing is easy when you integrate online favorites like Facebook with content from your PC.

# Apps all around.

The Windows Store has thousands of apps to choose from, so there's something for everyone.

# Accessories Buyer's Guide

### **Our Favorite Accessories**

OK, so you've got that great new computer, printer, laptop, or tablet, but what about all of the goodies that go with it? Your tablet needs a protective case—which might as well look great while it protects your investment. And you'll want a bag or backpack to help you carry that laptop to school or work, right? And what about a mount for your monitor, a case for your camera, or some paper for your printer?

In this section, the Smart Computing team lets you know about our favorite accessories.



When an accessory shows up here, you know that our writers and editors have decided that this is a product you should know about.

www.doublesight.com

# Flexible · Secure · Ergonomic

# DoubleSight Displays Flex Monitor Arms

DoubleSight Display's Flex Monitor mounting solutions are the perfect mounting solution for LCD monitors of all sizes, all-in-one computers, and LCD televisions.

The Flex Series offers a variety of arm options, providing height, tilt, pivot, and swivel adjustments, and allowing you to customize your view. Once fixed to the desktop or wall, Flex Arms provide a secure and ergonomic mount.

- · Articulating Arm and Swing models for any size monitor
- · Mount multiple monitors on a single pole
- · Fully adjustable, ergonomic fit for any user
- · Eliminate desktop clutter with built-in cable management
- · Secures monitor in place for theft deterrence
- All Flex Monitor arms and stands ship completely assembled





#### Accessories

www.doublesight.com

### Tilt. Swivel. Pivot.

# DoubleSight Displays Multi Monitor Stands

DoubleSight Displays' Multi Monitor Flex Stands are uniquely designed to offer maximum flexibility for a custom fit on every desktop. Flex Stands offer a variety of models to accommodate monitors of all sizes.

- · Unique Flex Design allows for custom configuration
- · Single, Dual, Triple and Quad Models
- Fully VESA compliant mounts for up to 30" monitors
- · Adjustable Height, Tilt, Swivel and Pivot
- · Ergonomic mounting solutions relieve user stress to eyes, neck and back
- All Flex Stands ship completely assembled





www.staples.com

# Go Hands Free With

# Felix® Stand for iPads, tablets, and eReaders

Introducing Felix and a new line of tech accessories, exclusively available at Staples® for a limited time. Go hands free with your tablet. Get one for the kitchen counter, one for the office, one for travel and even one to cuddle on the couch. Watching movies, following recipes, playing music, reading books and FaceTime® has never been easier. Make your tablet experience more comfortable with these extra hands from Felix.

### TwoHands

- · Clips and holds with just one squeeze.
- Slide to the perfect viewing angle. Set on a level surface and enjoy.
- · Slim profile fits easily in your pocket, purse, or bag.
- · High quality aluminum, plastic and silicone won't scratch or mar surfaces.
- · Available in 6 different colors; get one for every person on your list.





#### MonkeyDo

- · Always happy to hold your view steady.
- · Hands grasp while the feet act as an anchor.
- · Fun gift for the playful techies on your list.
- High strength polycarbonate with specially designed rubber grips won't scratch or mar surfaces.









# Functional Fashion

### Unique & Practical Charm From PNY

If you're looking for unique, functional charm in your accessories, look no further than these gems from PNY.



ore than just adornments, these USB flash drive accessories from PNY are attractive and useful. Whatever you're storing, sharing, or transporting—whether it's photos, music, video, or other important files—PNY lets you do it with style. Go ahead: Make Life Simple.™

#### Charm Bracelet Attaché

The Charm USB flash drive features a crystal jewel detail, with a beautiful metal locket in the form of a handy USB flash drive. It includes two complementary-color rope bracelets that can be worn separately or together.

P-FDI8GBCHM-GE - 8GB Capacity

#### Paisley Bracelet

This reversible USB soft rubber bracelet features trendy paisley and modern stencil-like designs, and it's available in various fashion-forward colors.

#### P-FDU8GBBRACP1-GE

(Pink and Yellow Bracelets) - 8GB Capacity P-FDU8GBBRACP2-GE

(Red and Blue Bracelets) - 8GB Capacity

#### Paisley USB

A convenient rubberized paisley USB flash drive designed using various ontrend colors. A perfect way to store files on the go and add a splash of color and style to any bag or keychain.

P-FDU8GBPAISY-GE (Yellow) - 8GB Capacity P-FDU8GBPAISP-GE (Pink) - 8GB Capacity P-FDU8GBPAISB-GE (Blue) - 8GB Capacity

# Software Buyer's Guide

### Our Favorite Applications

Your computer is pretty cool, alright—great for work, play, and everything in between. It's an awesome piece of incredibly powerful hardware, but by itself it does absolutely nothing. In order to use that hardware to actually do something useful, fun, or entertaining, you need something more: You need programs that will let you write, draw, watch, play, listen, communicate, surf, read, calculate, and so on. What you need is software.

In this section, the Smart Computing team lets you know about our favorite software picks. Here you'll find everything from word processors to accounting software, and from video editors to security applications—and everything in between.



When you see it in the pages of Smart Computing, you know that our writers and editors have decided that this is a piece of software you should know about.

### McAfee All Access

# Unlimited Protection For all the devices you own



Security is a fundamental requirement in today's connected world. Security threats are becoming more common and more sophisticated, and are moving beyond the PC to other devices. Whether you are on a PC, smartphone, tablet, or even a Mac, you need to keep your data safe, protect yourself from threats, and safeguard your privacy. McAfee All Access is a single product that protects all the PCs, Macs, tablets, and smartphones you own.

#### **Protecting All Your Devices Is Easy:**

- · McAfee All Access 2013 provides the security you need to connect with confidence on all your devices. Safely surf and search the web: McAfee's Site Advisor will warn you of risky websites before you click.
- Easy to use set up; the cloud-based console lets you manage and monitor all your devices from wherever you connect.
- · Free technical support for the life of the product from McAfee experts via phone, Internet chat, and remote access.

#### Secure Your Smartphone:

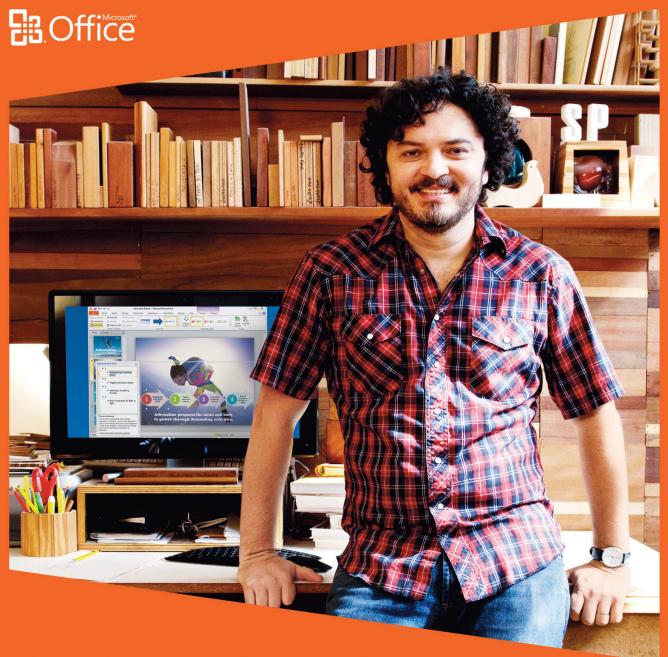
- · You rely on your smartphone to keep you connected. McAfee All Access keeps your precious data out of the hands of others with remote wipe and lock features.
- · Misplaced your phone? You can use the track feature or make it scream to locate it.
- McAfee App Alert provides intelligence about the apps on your Android device, preserving and securing your privacy.

#### **Keep your Family Safe:**

- Keeping your children safe online is a concern of every parent. McAfee All Access allows parents to protect children from objectionable websites and inappropriate content on websites, YouTube videos, online TV, and iTunes downloads.
- · Safeguard your identity from cybercriminals by storing sensitive documents in a password-protected vault.

In the constantly-morphing digital world in which we live, we need to protect ourselves, our families, and our data. McAfee All Access provides unlimited protection for all the devices you own. McAfee: Protect what you do.





# There's never been a better time to buy Office.

Save \$20 on the Home and Student Product Key Card when you buy Office with your new Windows PC today.

Plus get the **next version free\***.



### Tech Tip

# Copyright & The Internet

Do Unto Others . . .

here's a common misconception that material on the Internet is free for use, free to copy, and free to share—especially if it's for your personal use or if you give it away to others without charge.

Wrong. Someone created that material: drew that landscape, wrote those words, took that photo, recorded that piano piece. That person owns the rights to whatever he or she created—even if he or she never officially filed for copyright.

With rare exceptions, you cannot simply use materials you find online—not even if it's just for personal use. And as for giving it away, the courts have determined that giving material away is even worse than selling it, because there's no way the originator could possibly compete with your (nonexistant) "price." Which doesn't change the fact that it's still illegal, regardless of whether you sell it or give it away—it's just potentially even more damaging in the latter case.



There are two exceptions. The first is if the material has passed (or was purposely placed) into the public domain. The second results from the copyright law's "fair use" clause, which says that one may use portions (NOTE: portions) of a copyrighted work "for purposes such as criticism, comment, news reporting, teaching, scholarship, or research . . . . "

Software

usa.kaspersky.com

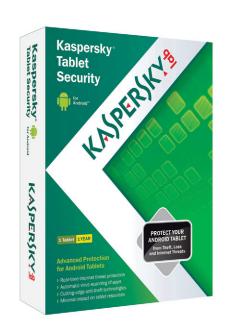
# Protect your Android Tablet

# Kaspersky Tablet Security

Kaspersky Tablet Security protects your Android tablet and the personal information stored on it with advanced antitheft features that can block, wipe and locate your lost or stolen tablet. It can even take a "mugshot" picture of the thief. Plus, real-time Internet threat protection and virusscanning keep you safe online with minimal impact on tablet resources.

- Real-time antivirus protection
- Automatic virus-scanning of apps
- · Cutting-edge anti-theft technologies
- · Web filtering to block dangerous links
- Minimal impact on tablet resources





SQ 40% SAVE

# VersaCheck®X1

GOLD gl

**Ultra-Secure** Finance and Check Creation Software

# Create and Print Verified Checks!



Manage finances



Create and print custom business and personal checks



New! gPay Terminal™

Accept gCard debit payments from anywhere and save thousands in merchant fees!







### gPay Terminal™ (PC/Mobile)

Save over 90% on payment processing with VersaCheck's new gPay Terminal™! No transaction fees.

Go to gValidate.com and sign up for your gCard today - it only takes minutes and it's FREE!

#### 1. Scan gCard & Get paid



Capture and process customer aCard payments with your PC or mobile device.

#### 2. Print check



Use any MICR-enabled inkjet or laser printer to print customer authorized & secure gCard check payments made out to you.

#### 3. Deposit check



Deposit payments into your account!

# Meet Your Match

Tablets, Smartphones, eReaders & Notebooks

Thanks to tablets, smartphones, eReaders, and notebooks, you have a lot of choices when it comes to a portable computing technology. Before we get into the troubleshooting sections, check out the top features you should keep in mind when shopping, so that you can find the device that best suits your needs. As always, your choice will largely depend on your intended use of the technology—likely influenced by budget considerations.

#### **Smartphones**

Consider upgrading to a model that uses the most current operating system, which will take full advantage of the powerful technology in your new smartphone.

Some smartphones feature 8MP cameras and glass lenses for improved photos and video. If you intend to conduct video "chats" with family or with business colleagues, be sure that your phone offers a front-facing camera, so that you can view others on the screen as they see a live image of you. Many offer two cameras, one front-facing and one rear-facing.

Check out the built-in apps to see if there are any available on one platform and not another, if that availability would influence your decision.

#### **Tablets**

There are a number of operating systems for tablets, including Android, iOS, and Windows. Test out the different operating systems to see which interface and features you prefer. Give yourself some time; it takes more than just a minute or two to make that decision.

Most tablets include a camera with which it's possible to take excellent photos. If you plan to conduct video "chats" with family or with business colleagues, be sure that your tablet offers a front-facing camera, so that you can view others on the screen as they see a live image of you. Many tablets offer two cameras, one front-facing and one in the rear.

Tablets come with a limited amount of internal memory. If you need to store a large collection songs, videos, or documents on the tablet, consider models with a larger storage capacity, such as 32GB, to provide space for all the files you need. Also consider possible ways to add external storage to your tablet. For tablets, these often take the form of wirelesslyconnected external hard drives, although some may connect to your tablet via some sort of USB cable.

Some tablets are available with built-in 3G or 4G mobile broadband data connections, as well as Wi-Fi. If you always need Internet access, look for a model that comes with a mobile broadband data plan. (But keep in mind that mobile broadband plans require paid subscriptions.)

#### Tech Focus



or) and E-Ink (black and white). If you want to use your eReader for more than reading, such as browsing the Web, you'll want an LCD eReader. E-ink is generally believed to be easier on the eyes, so it's ideal for those who plan on using the slate mainly for reading books or magazines.

Some eReaders are also capable of running apps; you may be able to download games or productivity tools that will enhance the value of your eReader.

To let you download books on the go, most eReaders offer Wi-Fi and/or 3G connectivity. Look for a model with

on a smartphone, tablet, or eReader.

Gamers should consider a laptop with dedicated graphics memory to provide them with solid performance when playing games.

If you need to travel with lot of personal files, such as music, digital images, or documents, look at laptops that offer plenty of storage capacity. Many laptops boast 320GB or more of hard drive space. Don't forget that you can also add easily portable external storage.

# Smartphones

**Troubleshooting Guide** 

Most of us rely upon our smartphones for work, for familly communications, and for fun.

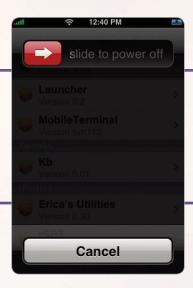
t's an alarm clock, an email tool, a GPS, a notepad, and an entertainment device, to name just a few of its uses. And when your smartphone is frozen, crashed, or running slowly, it can really put a kink in your day-to-day activities. Here, we'll help you fix a problematic smartphone.

#### Phone Is Unresponsive

Power down the phone and then restart it. Most phones feature a button you can hold for a given amount of time to bring up the power controls. For example, Apple iPhone owners can hold the Sleep/Wake button until a red slider appears, which you can then slide to turn off the device. Most Android-based phones bring up a shutdown menu after you hold the Power button for a few seconds. If your phone won't respond to any keypresses, you may have to remove the battery to restart the phone. Note that this isn't an option for the iPhone, as it has a permanently attached battery. Instead, hold the Sleep/Wake button and the Home button until the screen goes black and the Apple logo appears, which indicates that the iPhone is rebooting.

#### App Is Frozen

Just as on a full-sized computer, sometimes apps lock up. Most smartphones provide a way for you to



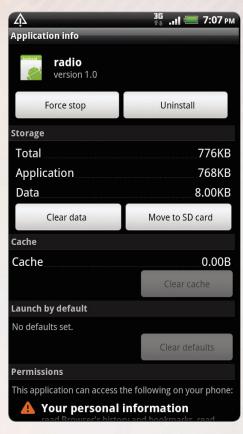
(A) You may need to power off and then restart your smartphone if it isn't responding.

force the app to close so that you can restart it. For devices that run Android 3.2 or below, tap the Menu button, select Settings, choose Applications, and tap Manage Applications. Under the Running tab, you can view a list of open applications. Select the app you want to close and tap Force Stop. If your phone is running Android 4.0 or higher, you can close an app by simply bringing up the multitasking pane and swiping the app to the left or right. With an iPhone, bring the app into the foreground and hold the Sleep/ Wake button until the Slide To Power Off notice appears. Now, hold down the Home button until the screen flashes and returns to the main screen.

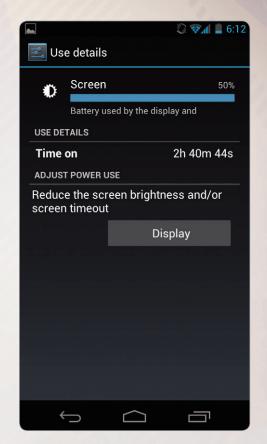
#### Sluggish Phone

The more apps you install, the more free space will be taken up in your phone's internal memory. Here's where the phone begins to slow down—if there's not enough memory for an app to run, the smartphone must close out a currently running program to free up

### Tech Focus



(A) When you select an app from the Manage Applications window, you can close it by selecting Force Stop.



You can turn down the brightness of an Android smartphone's screen to save battery.

enough space to start the new app, which takes both time and processing power. The easiest way to speed up your smartphone is to remove apps you're no longer using. With iOS devices, tap and hold the icon of the app you wish to delete. When the app begins to jiggle, a small black "x" will show up the corner of the icon. (And all the other icons on that screen.) Tap the "x" and the iPhone will warn you that pressing Delete will remove the app. Tap Delete and then press the Home button to stop the apps from jiggling.

### Battery Life Is Short

A smartphone can quickly deplete its built-in battery when all of its wireless connections, such as Wi-Fi, GPS, and Bluetooth, are left on. If you find that your phone isn't making it through the day, turn on the given wireless options only when you need them. Another common energy drain is screen brightness. Many



It's fairly easy to delete apps from the main iPhone screen.

smartphones include convenient brightness controls, so turn the brightness level down to a power-saving mode when in normal lighting conditions; when you move to a sunny area, you can temporarily boost the brightness to make the screen clearly visible in daylight.

# Troubleshoot Your Tablet

Common Problems & Solutions

Experiencing a problem with your tablet? This article can help. We'll examine a few common problems and help you resolve them.

# our tablet will shut down

Trying rebooting your tablet when it seems slow.

### Sluggish Tablet

Despite the sometimes important differences between a tablet and a PC, tablets are just small computers. And like PCs, they will occasionally suffer from issues caused by poor memory management, system errors, and file corruption. Often the easiest way to resolve performance problems is to reboot the tablet. Note that this is not the same as simply pressing the Power button and putting the tablet into sleep mode. With an Android-based tablet, you'll need to hold the Power button until the Shutdown menu appears. Select Power Off; once the device shuts down, press the Power button to restart the tablet. iPad owners can hold the Sleep/Wake button until a red slider appears; slide to turn off the iPad. If all else fails, on some tablets you can open the back panel and remove the battery.

### **Unresponsive Apps**

Just as with programs on your PC, tablet apps can lock up. To force a frozen app to quit on an iPad, hold down the Sleep/Wake button until the red slider appears. Release the Sleep/Wake button and hold down the Home button for six to 10 seconds. Open apps should be forced to restart, and the iPad should bring you back to the Home screen. With an Android-based tablet that operates on version 3.2 or below, you can tap the Menu button, select Settings, choose Applications, and tap Manage Applications. Under the Running tab, you'll see a list of the open apps on your tablet. Select the one you wish to close and touch the Force Stop button. If your tablet runs Android 4.0, you'll be able to close an app by bringing up the multitasking pane and swiping the app to the left or right.

### Wi-Fi Dropouts

If Wi-Fi dropouts occur only in one room or in one location in the room, you may simply need to use



With a tablet running Android 4.0, you'll be able to close apps by touching the app and swiping it off the screen.



The Wi-Fi Networks window will provide a signal strength bar to indicate the quality of the signal.



To save battery life, turn off your Wi-Fi, Bluetooth, and GPS when not in use.

the tablet somewhere else. The quality of your Wi-Fi signal can be affected by a number of different things. First, you may be experiencing interference due to a neighbor's Wi-Fi signal, which typically uses the 2.4GHz frequency. Other devices that cause interference include cordless phones, baby monitors, and Bluetooth devices. An entire room may be included in a dropout area, depending on the walls. Problematic materials include brick, metal, solid stone, and mirrors. Fortunately, tablets are portable devices, so it's usually easy to find another place to use it where the signal is stronger.

### Less Battery Life Than Expected

Many of today's tablets provide wireless connectivity for Wi-Fi, Bluetooth, and GPS. If your Wi-Fi, Bluetooth, and GPS features are constantly left turned on, your tablet will use up its battery more quickly, even when not actually connected. Why? Because the device expends energy searching for a nonexistent connection. When you're not using a wireless technology, it's a good idea to turn off the feature via the Settings area of your tablet. You'll be able to quickly turn it on again when you need it. Another common battery hog for tablets is the brightness level of your screen. Sure, it's nice to be able to clearly see the screen in bright outdoor environments, but in normal lighting, the tablet probably doesn't need to operate at the highest brightness level. You can access the tablet's Settings to set your brightness level. Note that many new tablets feature automatic brightness controls (which work by using the tablet's camera to analyze the room lighting), so you won't have to adjust those tablets.

# Repair Your eReader

Addressing Common eReader Problems

Advancements in eReaders have made eBooks a viable way to read our favorite books, magazines, and newspapers.

ow you can travel with hundreds of books in the palm of your hands—as long as your eReader is functional. Here are some common eBook-related problems and solutions.

### The Screen Won't Shift

Automatic rotation isn't always enabled on an eReader, so you may be stuck in portrait mode to begin with. To enable the feature, access the settings of your device and look under the screen configuration. Remember that not all apps or books will work in both portrait and landscape mode, so a failure to rotate may be due to the format of the book, rather than to a problem with the eReader.

### eBooks Won't Download From Wi-Fi Connection

Many eBooks, especially ones with pictures or maps, are quite large, and magazines can be even larger. Thus, it may take a while for your eReader to download the entire text. If the eBook download doesn't seem to be making any progress at all, try moving closer the Wi-Fi router, because the signal quality may not be the best in your current location. If the eReader offers a signal strength indica-



Typically, you can switch on an auto-rotate option in the Display settings of your eReader, so the device can switch between portrait and landscape modes.

tor, move around with the device until you find a better signal. If there's no way to acquire a decent Wi-Fi signal, it may be possible (depending on the device) to download the book to a PC and from there to "sideload" the book to the eReader using a USB (or other) cable.

### My PC Won't Recognize My eReader

Start by connecting your eReader to a different port on your computer, because it's possible that one of the ports on your PC may not be functional. If that doesn't work, try restarting both your eReader and your PC to see if there were any hang-ups or glitches that were preventing the two devices from connecting. Failing that, use a different USB cable to bridge the connection, because there could be something wrong with the cable or with its USB plugs.



Digital editions of magazines can be quite large, and may take a while to

download over Wi-Fi.



Reducing the screen brightness will increase battery life.



You may need to try a different USB cable or a different USB port if your PC isn't connecting to your eReader.

### My eReader Isn't Responding

Sometimes the best solution here is simply to reset the eReader, and that process can vary. If possible, you could also take off the back of the eReader and physically remove the battery, which should force the device to restart. If the device doesn't start up again, ensure the eReader has battery power by plugging it into a charging port. You may simply need to recharge the battery. If the battery appears to be dead, it's a good idea to charge it for a few hours before using it.

### eReader Won't Play An Audiobook Or Music

It's possible that your eReader doesn't support that specific type of audio file. For example, some eReaders can play only MP3, AAC, and WAV files. You may need to download the audiobook again, this time in a format

that works with your eReader. Some eReaders may also require that audio files are stored in a particular folder on the internal memory. Visit the manufacturer's tech support to find out if there's a certain folder where you need to save audiobook or music files.

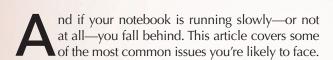
### Battery Life Is Too Short

When you're searching for eBooks and other content, you'll need to utilize the eReader's Wi-Fi connection to download the files. But once the files are downloaded to your device, you typically don't need to stay connected while reading the book. You can save battery life by disabling the Wi-Fi connection when it's not needed. Another good way to stretch battery life is to lower the brightness level and screen timeout delay, which will help to reduce the amount of power dedicated to the eReader's display.

# Troubleshoot Your Notebook

**Quick Fixes For Common Problems** 

For many of us, our notebook is what we use when we need to get work done.



#### Notebook Doesn't Turn On

In this case, you don't have much information available to help you determine what's wrong. Look for a light on the laptop that indicates whether the battery is being charged. It's possible the notebook has been plugged into an outlet that's not functional, so you'll want to try plugging the power adapter into a different outlet. If the battery appears to be charging, let it sit for 10 minutes to see if the battery just needed some juice. If the notebook still won't turn on, remove the battery and connect the power adapter. Then, if it boots up, there's likely a problem with the battery. (But keep in mind that some notebooks require that a battery be present, even when running on AC power.)

#### Sounds But No Video

The notebook doesn't display anything on the screen, but you can hear fans and see LEDs. This often happens



Many new laptops have LED indicators that will tell you if the laptop is receiving power.

when some component on the notebook is failing. Try unplugging any peripherals, such as a USB flash drive or audio cable, that may be causing shorts in the system. If that doesn't work, you may need to take the laptop in for repairs, as most of the hardware inside of a laptop is fairly inaccessible to most do-it-yourselfers.

### Notebook Randomly Turns Off

When a modern PC gets too hot, it will typically shut itself down to protect the internal components from overheating. If this is happening to you, track down the cause of the heat. For instance, is there anything blocking the vents, such as dust or a blanket, that's preventing the vents from exhausting hot air? A can of compressed air can be used to blow dust



If your laptop is having trouble starting, removing some of the external devices connected to it may help rule out or pin down a short.



When your laptop freezes up, you may need to remove the battery to restart it.



From the Windows Mobility Center, you can adjust key settings that impact battery life.

out of the vents. Random shutdowns may also occur due to an overheated battery, a short circuit within the laptop, or bad memory.

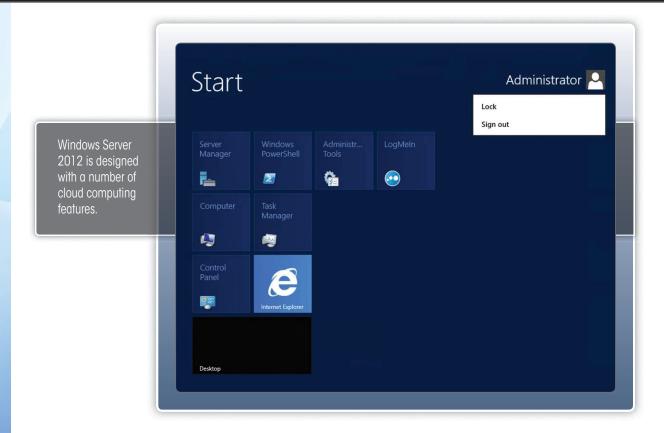
#### Notebook Is Frozen

If this were a desktop computer, you could simply pull the power cable, but a laptop's battery may allow it to continue "running" even though it's locked up. To quickly reboot the laptop, disconnect the power cord and turn the laptop over to remove the battery. After removal, wait about 10 seconds for the residual power to discharge, and then reinstall the battery. Now, you can turn the laptop on, reload your applications, and start off where you last saved. (You did save, right?)

### Short Battery Life

When you first purchased your notebook, it could run on battery power for several hours at a time. But now, you're lucky if you get an hour out of it. Modern notebooks use Lithium ion batteries., and with these batteries, the total capacity tends to fall over time as you recharge and discharge the battery. It may simply be time for a new battery. However, you can also utilize the Windows Mobility Center found in Windows 7 and Windows 8 to make changes to settings that can extend battery life. For instance, you could lower the brightness of your screen, turn off wireless connections that aren't being used, and change Windows' power modes to extend battery life.

# News, Views & Tips



### WINDOWS SERVER 2012

### Cloud Advancements For Business

Microsoft recently announced the general availability of Windows Server 2012. The new operating system is focused on utilizing cloud computing, as there are more than 200 cloud services built in. Windows Server 2012 is built to work with Windows Azure and System Center to help you deliver applications and services across your company's private, hosted, or public clouds. In particular, you'll find key clouds advancements for virtualization, storage, networking, and automation, which can help you to improve the speed, scale, and power of your servers.

### MICROSOFT NEWS

### SkyDrive For Android

The SkyDrive for Android app allows you to access and manage your SkyDrive files from your mobile phone. Microsoft indicates that it retains the same intuitive SkyDrive design for the mobile app, so you'll be able to quickly find and download files to your Android device. With access to SkyDrive, you'll be able to see the documents, photos, and other files you've saved to SkyDrive, as well as files other people have shared with you. You can upload multiple photos or video from your Android device, or share those files with others via Sky-





The Nokia Lumia 820 and the Nokia Lumia 920 feature Windows Phone 8.

Drive through an email link. The SkyDrive file can also be opened in other Android apps, so you'll be able to load documents and files in your preferred editing app.

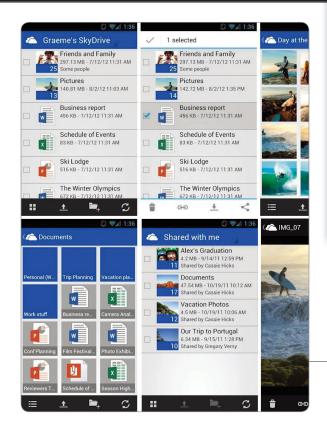
### First Windows Phone 8 Devices

September saw the release of the first phones designed for Windows Phone 8: the Nokia Lumia 820 and the Nokia Lumia 920. The 820 features a wireless charging shell, which you can combine with the Charging Pillow by Fatboy for wireless phone charging. You'll also find an 8MP camera with a Carl Zeiss Tessar lens for high-quality photo and video. The 4.3-inch ClearBlack Display is designed to provide you

with vivid color. The high-end Lumia 920 improves upon the 820, adding Optical Image Stabilization to your photos, as well as PureMotion HD+ video quality. The Lumia 920 offers a 4.5-inch display and a battery that provides up to 10 hours of talk time.

### IT Admins: Note New Certificate Requirements

If you're an IT administrator, take note of Microsoft's 1,024-bit requirement for digital certifications that will be applied in an automatic security update on October 9th. The longer keys can also affect websites, as Internet Explorer won't load any website that has been secured with an RSA key length of fewer



### TIPS

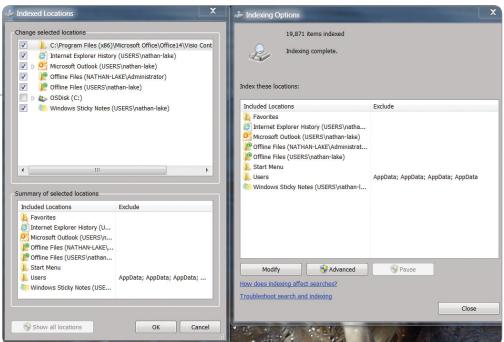
### Improve Windows Searches

When you enter a query into the Search field in the Windows 7 Start menu, Windows examines the files that it has indexed on your computer. By default, most files included in a library, such as Documents, Pictures, and Music, are automatically indexed. But if your files aren't located in the Library folders, you'll want to add those folder locations to the index. To do so, click the Start button, select Control Panel, type indexing options, and click Indexing Options. Select Modify and locate the folders containing the files you want to index. If the folder doesn't appear, click the Show All Locations link.

SkyDrive For Android provides you with access to your SkyDrive online storage via your Android device.

You can add folders to Windows' Indexing Options.

than 1,024-bits. The reason for the change is that RSA keys of fewer than 1,024 bits are capable of being cracked, and that would allow hackers to use the certificate to spoof content or create phishing attacks. Microsoft also noted that 1,024-bit is the minimum length, and that 2,048 bits would be even better.





# Windows 7 Tips & Tricks

### Changing File Associations

any of us use Microsoft's Windows 7 operating system on our home or work computers, but it's likely we haven't taken advantage of all of its features. This month, we'll look at how adjusting a file's association can improve your user experience.

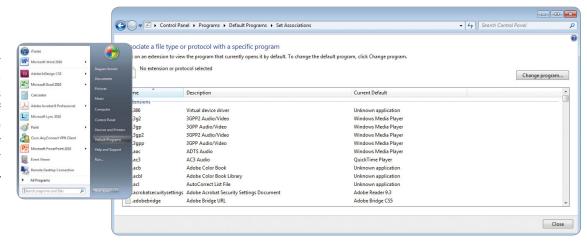
Opening a file is one of those tasks that we rarely think about because the process happens automatically. When we double-click a file name, Win7 opens the file using the appropriate program and, depending on the file type, you can read a document, view a video, listen to a tune, and so forth. But is there ever a time when you have trouble opening a file or wish a certain file type would open in a program

other than the default program Win7 specifies? Maybe you want all TIF files to open in Windows Media Center and all BMP files to open in Windows Photo Viewer. You can specify what file types open in which programs by tweaking their file associations. The file association is what connects a file (and all classes of files) with the default program that opens that file.

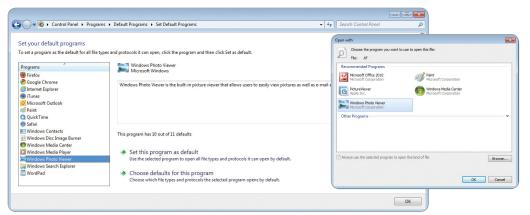
### Modify File Associations

To change file associations, open the Start menu and click Default Programs. Next, click Associate A File Type Or Protocol With A Program. The resulting window displays file extensions, a description of each file type, and the

The Default Programs option in the Start menu is the path to take if you want to change file associations or establish default programs.



The Associate A File Type Or Protocol With A Specific Program window lets you see all file extensions and which program opens those files by default.



When you choose to change the default program that opens a file. Windows will recommend programs. TIF files open in Windows Photo Viewer by default, but we can change that and have the files open in Microsoft Office 2010, Paint, Apple's PictureViewer, or Windows Media Center.

If you would prefer to first select a default program and then choose file associations based on that program, choose the Set Your Default Programs option in the Default Programs window.

current default program linked to that file extension. We clicked the .TIF file extension and noticed that Windows Photo Viewer opens this type of file. To select an alternate default program, we clicked the Change Program button. Among the options from which we could choose were: Microsoft Office, Paint, Windows Media Center, or Windows Photo Viewer, and Apple's PictureViewer. Any program you select will become the default for the TIF file extension when you click OK.

### Set Default Programs

If you prefer one program over another to view specific files, you can set that program to be the default and choose all the file types it can open automatically. For instance, you can use iTunes for some music files and Windows Media Player for others. You can pick and choose the types of files that are associated with each program. Open the Start Menu and click Default Programs. Next, click Set Your Default Programs. Select any program and Windows displays information that explains what the program is and how it is utilized. Make any selected program the default by clicking Set This Program As Default and OK. Alternately, you can select the Choose Default For This Program option to select specific file types and protocols that the selected program will open by default.

#### Fine-Tune Your Files

With these file association tips, it's easy to configure which programs open what files and make better use of your time.

# Windows Lifecycle

### When To Upgrade Your Operating System

ith Windows 8's launch finally upon us, now is a great time to brush up on the lifecycle particulars of Microsoft's current and former operating systems. Microsoft has a 10-year minimum support plan for its operating systems: at least five years of mainstream support and five years of extended support. Now is the time to upgrade, if the operating systems you use are nearing the end of their lifecycle.

### The End Is Nigh

Microsoft's operating systems all have two different expiry dates, End Of Sales and End

Of Support. The former refers to the point at which Microsoft stops shipping the particular version of Windows to OEMs (original equipment manufacturers) and retailers. Often, the retail End Of Sales dates occurs before the OEM one. According to Microsoft, you should begin thinking about upgrading if your OS has reached its End Of Sales

Type of support	Mainstream support phase	Extended support phase	Self-help online support			
Request to change product design and features	1	×	Free access to online content, such as Knowledge Base articles, online product			
Security updates	<b>✓</b>	1	information, and online support WebCasts			
Other non-security hotfixes	<b>✓</b>	☆				
Complimentary support <sup>1</sup> included with license, licensing program <sup>2</sup> , and other no-charge support programs	1	×				
Paid support (including pay-per-incident Premier and Essential Support	1	1				

<sup>1</sup> Refers to phone support and online support options

Applies to all products

date, but as long as your operating system has the latest service pack, you'll still get updates and security fixes.

There are actually two End Of Support dates. The first occurs roughly five years after the operating system's launch. This period is called the mainstream support phase, and during it you can still request changes in product design and features, download free security updates and hotfixes, and get complimentary and paid support. When the mainstream support phase ends, the OS goes into its extended support phase, which eliminates complimentary support and

most hotfixes; however, security updates and paid support will continue until this phase ends. If your OS is in the extended support phase, then you should consider upgrading as soon as possible.

Once in the extended support phase, your OS is no longer current and you will be unable to apply most hotfixes.

### End Of Support Dates For Windows OSes

The End Of Support dates are important factors to consider when you're determining when to upgrade. Use this chart to determine if your OS is getting long in the tooth.

	End Of Mainstream Support	End Of Extended Support
Windows XP	4/14/2009	4/8/2014
Windows Vista	4/10/2012	4/11/2017
Windows 7	1/12/2015	1/14/2020
Windows 8	To Be Determined	To Be Determined

<sup>&</sup>lt;sup>2</sup> For example, support incidents acquired through the Software Assurance program for server products

### **Business Tech**

### **Business Card** Scanners



ou pick up business cards on business trips, at conventions, client meetings, airport bars, golf outings, seminars, lectures, and more. But digitizing the details on those rectangular scraps of cardstock can be an arduous process. With a business card scanner, however, you can just feed the cards in one-by one to quickly build a database of potential gold mines.

#### Core Features

Most dedicated business card scanners don't take up much desk space and are easy to pack up and take on the road. The WorldCard Pro, from Penpower Technology, is only 4.21 x 3.9 x 1.1-inches (L x W x H) and it features a pop-up design that makes it perfect for portable use. These devices commonly employ USB ports and cables for both data and power. Most dedicated business card scanners are sheet-fed, meaning the scanners pull the business cards across a stationary scan head to generate a digital image of the contact details. Other common business card scanner types include flatbed and handheld scanners. You can also find smartphone apps for all the major platforms that let you take photos of business cards to digitize the contact information.

### Software Side

One of the most important facets of business card scanners is the software that comes with them. Most business card scanners will output in standard image, vCard, or CSV (comma separated value) formats and can accurately populate name, phone number, and email address fields. Many devices are compatible with other applications, such as Outlook, Excel, Lotus Notes, and Microsoft CRM. Other software extras include the ability to display maps to addresses, send scanned cards via email, search your scanned contacts, and recognize business cards in multiple languages. Some software also lets you create contact entries by dragging and dropping details from email signatures or other contact management applications.

A business card scanner is a simple way to make sure you have quick access to the contacts on which your business relies.



Some mobile apps, such as WorldCard Mobile, let vou digitize business cards by taking a photo with your smartphone.

### **Promote Your Business**

# Gain Online Exposure With Google+

oogle's search engine has become so popular that the word "google" is now a verb that's used to describe seeking information online. As such, people commonly use Google to discover information about businesses and products. Google+ is the search giant's social networking platform, which lets you increase your company's exposure by creating company pages to share breaking news, communicate with customers, and inform them of promotions. Here, we'll examine the key benefits of Google+ brand pages.

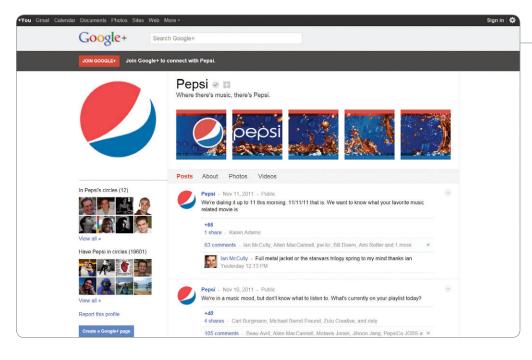
### Top Of The List

Google's search engine offers a number of ways to bring people



Google+ Hangouts let you video chat with up to 10 others.

to your Google+ brand page. For example, Google+ Direct Connect is a feature that allows people to add a plus sign (+) to the beginning of a Google search, followed by your business name, to automatically route the customer to your Google+ page—for example "+Pepsi" would bring up Pepsi's Google+ page. Google+ brand pages are also included in Google's search results, so customers unfa-



Type a plus sign (+) followed by a company's name in Google's search field, and you'll likely find the company's Google+ brand page as the top result.

### Business Technology

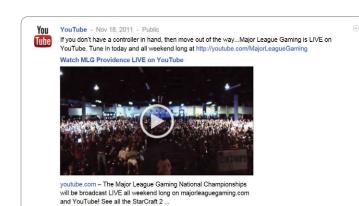
miliar with the + query can still find company pages using a traditional search. Google has also incorporated Google+ features into its Gmail, Chrome, and Android platforms, such as the Google+ extension for Chrome and the app for Android smartphones.

### Real-Time Video Chat

Google Hangouts is another key feature of Google+ brand pages, because Hangouts gives your customers and clients a chance to communicate about your business. You can invite up to 10 people for a videoconference. For instance, let's say you run a small garden nursery, and you have a group of loyal visitors who have begun asking you questions about what's best to plant in their backyards. You could have a regularly scheduled weekly discussion, where an employee would be available to video chat with customers and answer their questions. Or let's say you run a gourmet food retailer and want to get people involved in the best ways to utilize your products. You could host a weekly video chat hangout where you actively prepare the dish and answer any questions viewers have. The Hangouts feature is also ideal for activities such as announcements and contests.

### Photos, Images & More

Google+ offers built-in integration with YouTube, which is where many businesses store their online videos, and Picasa, which is Google's photo-sharing website. The integration makes it simple to share videos and images throughout multiple online venues. By comparison, link integration is possible with Twitter and Facebook, but the process requires more work, such as shortening the Web address or sending the customer away from your brand page. The multimedia options help you engage customers that visit.



YouTube integration allows users to watch videos directly on your Google+ company page.

### Circles

With Circles, Google+ automatically provides group options for Following, Customers, VIP, and Team Members. This way, you can categorize consumers and clients to prevent spamming followers with messages that may not apply to them. For instance, special promotions can be limited to a VIP group. Google+ lets you set up custom circles, so you could separate followers by key demographics, such as women ages 35 to 50, or having different circles for the different types of products you offer.

> Google+ Circles give you a way to tailor your messages to a specific audience of followers.



### Nathan

#### Stream

- Friends
- Family
- Acquaintances
- Following

Incoming

**Notifications** 

### Google+ Do's & Don'ts

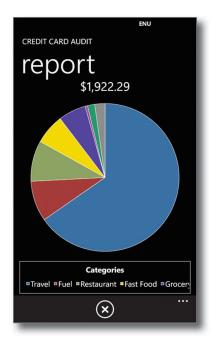
Here are some quick tips you should think about when posting content to your Google+ page.

- Do update your Google+ brand page with important announcements, new products, and other exciting news.
- Do set up Circles and create posts tailored to the given demographic.
  - Do incorporate videos and photos that will help build your business' image.
- Don't spam your Circles with news that won't help build your brand or interest clients.
- Don't attempt to sell something with every post because you want readers to interact with your business.
- Don't ignore comments from followers; reader engagement is valuable to your business.

## Mobile Marketplace

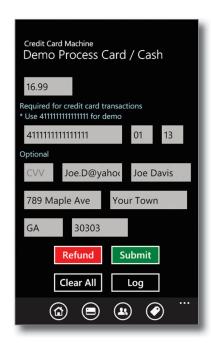
### Business Apps For Android & Windows Phone 7 & iOS

Some powerful business tools are floating in the sea of smartphone apps. Each month, we'll highlight some of the best ones for Windows 7, iOS and Android platform users. (Unless otherwise noted, Windows Phone 7 apps are available in the Windows Phone Marketplace, Android apps in the Android Market, and iOS apps in Apple's App Store.)



### Credit Card Audit Windows Phone 7

Credit cards can be a doubleedged sword; they're great as a way to conveniently purchase the supplies and items you need, but it's difficult to keep track of your purchases before the bill arrives. Robert Austin's Credit Card Audit app makes tracking purchases easy. From the main menu screen you can tap tiles to add charges, view recent charges, view accounts, adjust settings, view reports that break down your purchases by type, and email suggestions to the developer. When your bill arrives, check your records against the bill to make sure you're only paying for what you purchased.



Credit Card Machine

Windows Phone 7

If you're in a small business that makes house calls, then you know how frustrating taking payments can be. Credit Card Machine is an app that lets you process credit card transactions directly from your Window Phone 7 device. The free version of the app automatically links customer referrals on social media websites such as Facebook, includes access to product and service inventory databases, and provides customer databases with support for notes and contact information and an in-app shopping cart so you can check out quickly and conveniently, wherever you are.



My Conference Calls

Windows Phone 7

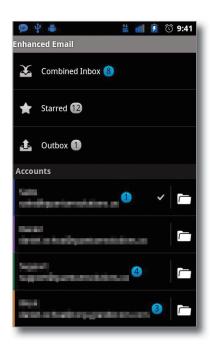
If dialing in to join conference calls makes you pine for the days when all you had to do to conduct a meeting was hop on a plane, rent a car, and meet your clients in person, then you need to check out My Conference Calls. This app lets you forego dialing dozens of digits to reach the conference, confirm the meeting ID, and input the leader ID; all you need to do is tap the appropriate conference and you're ready to join or host from your device. This app gets all the details it needs for the conference call from your calendar, and it also works well with Microsoft's unified communications platform, Lync.



### Convertor Pro

### Android

If you occasionally need to quickly convert inches to millimeters, decimals to fractions, dollars to euros (and vice versa) or any of 450 units of measure and currency, then you need Convertor Pro. Udell Enterprises, Inc. designed Convertor Pro to be simple and intuitive: Once you select your units, you can input new figures to automatically get the conversions without having to calculate each time. Other features we like include the clipboard memory function, tablet support, support for swipe and long-press gestures, and the ability to apply either of two visual skins.



### **Enhanced Email**

#### Android

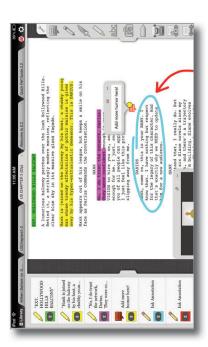
Quantum Apps' Enhanced Email is a lot like your phone's default email app. It lets you combine inboxes for multiple email accounts and services. What makes it different from the stock app is its host of features, including support for practically any POP/IMAP Web mail service out there, Exchange server calendar/contacts/email syncing, Zimbra Collaboration Server, Novell Groupwise Server, and IceWarp Server. Other features include the ability to back up and restore accounts and settings, full message text search, and custom fonts. The app also lets you sort messages by date received, sender, subject, and more.



### SignNow



Most documents we work with are digital, but in order to sign them, we need to print them out, physically add our signatures, and then scan them back into a digital format. Sign-Now cuts out the middle step and lets you sign documents right from your iOS-based device. This app also lets you quickly and conveniently fill out forms without a PC, Mac, or printed copy. Supported document types include PDF, Word, and rich text documents. You can also open documents from your email or Dropbox account and create a template from any existing document and save it for repeated use.



### iAnnotate PDF

iOS

Folks who do a lot of work with PDFs will immediately see the value of an app that lets them add notes to, highlight passages within, and annotate PDF documents directly from their iOS-based devices. iAnnotate PDF lets you add notes to slideshows, annotate business documents, revise text, grade papers, and more. You can use various tools, including a fine-point pen, highlighter, typewriter, stamps, notes, photos, voice recordings, and date stamps. You can also underline and strikethrough text. iAnnotate PDF also works with iTunes, Dropbox, Box, WebDAV, and web-based PDFs.



My Contacts Backup

iOS

Your list of contacts is easily one of the most valuable things on your mobile device. Don't risk losing it; back it up now with My Contacts Backup. This app has a simplified and easy-to-use interface. To perform a contacts backup, just tap Backup from the main screen. Once backed up, you can email a plain text version of your contacts in VCard (.VCF) or Excel (.CSV) format and email it to yourself. There's no online requirement and no service to set up, just click it and email. The app also lets you delete your contacts and restore your contacts from a backup.

### App Of The Month



When you're waiting on an important shipment, especially one that you require to do your job, you probably follow it from the moment the tracking number is created until it shows up at your doorstep. To make tracking packages from multiple carriers easier, Minstech has created Package Tracker Pro. This app supports notifications and alerts via ringtone, LED, vibration, and email, and syncs tracking numbers between the mobile and PC versions of Package Tracker Pro. The app supports more than 30 domestic and international carriers, so you're always on top of your important deliveries, no matter where they are.

### What You Need To Know

### Headphones



eadphones are a useful accessory for many of today's devices, including laptops, smartphones, tablets, and portable media players. In some cases, headphones are the only way that you'll be able to hear audio from a portable device. Here, we'll examine the different types of headphones and what you need to consider when purchasing them.

### Over-The-Ear

As the name suggests, over-theear models are designed with comfortable ear pads that surround your outer ears, so the headphones don't sit on your ear lobes. Also known as full-sized or circumaural, over-theear headphones create a natural seal

by sitting against your head, which can help to reduce external noise that can be intrusive when you need to focus on the task at hand. Overthe-ear models are the largest style of headphones. The large size allows

manufacturers to incorporate larger, high-end speakers into the ear pads for a superior sound, compared to other types of over-ear headphones. On the flip side, the large size makes over-the-ear headphones less desir-

### OVFR-THF-FAR MODELS

are the largest style of headphones. The large size allows manufacturers to incorporate larger, high-end speakers into the ear pads for a superior sound, compared to other types of over-ear headphones.

able for a traveler who has limited space for headphones in his travel bag.

#### On-Ear

This style of headphone is similar to over-the-ear, except that the ear pads sit directly on your ear lobes. You'll still enjoy the comfort of cushioned or foam ear pads, and the flat cups are typically smaller and lighter than over-the-ear models. The onear design still allows for some ambient noise, which is perfect if you plan on wearing the headphones while walking (allowing you to hear traffic and others around you) or if you want to keep an ear out for a phone call.

#### Behind-The-Neck

A band running behind the ear pads or earbuds rests against your neck, which is perfect for people who wish to listen to music while exercising. Thus, behind-the-neck headphones are ideal for runners, bikers, hikers, and other outdoor enthusiasts.

### Clip-On

These headphones feature an attachment that slides over your ear. so it's easy to take on and off. The lightweight, easy-to-put-on design makes them appealing for people who are on the go and want a portable set of headphones they can easilv slip on and still be able to hear ambient noise around them.

#### Earbuds

These are one of the most popular headphone options because the ultra-portable design allows them to be taken anywhere. You wear earbuds by resting them inside your ear, which naturally helps to block out background noise that may be distracting when you need to concentrate or just want some time alone with your thoughts. Earbuds are handy for commuters, travelers, and anyone who wants small, pocketable headphones.



### Buying Advice

- Consider the types of activities you perform while wearing headphones and invest in a style that best matches those activities.
- If it's important that you only hear audio from your computer or other mobile device, look for headphones that feature sound-isolating or noisecancelling technology, which are two ways that headphones reduce ambient noise.
- Wireless models that communicate via Bluetooth are convenient for people who use headsets with laptops, smartphones, and other Bluetooth-enabled devices.

### Password Managers

Put A Padlock On Your Online Identity



it up straight, wash behind your ears, eat your vegetables, look both ways before crossing the street, and always use strong passwords. OK, so Mom probably didn't mention that last one, but she should've. Passwords keep your identity and money safe when you're online, so it makes a lot of sense to make sure those strings of characters are built like Fort Knox. Password managers are the key to making the most of your online security.

### What Password Managers Can Do For You

A password manager is typically a lightweight software application that saves the logon details of your various user accounts and automatically logs you in as you access those secure services. Many include browser plug-ins, let you create secure passwords, automatically fill out forms, and do even more to help you keep your virtual and real identities out of the hands of cyber criminals. Password managers utilize a master password, which you must memorize and enter whenever you want to access your secure sites. Almost all password managers support multiple browsers, including Internet Explorer, Firefox, and Chrome; the ability to fill in shipping addresses, credit card numbers, and other fields; and category tags so that you can organize your secure sites and quickly launch them from the password manager interface. There are other

### Personal Technology

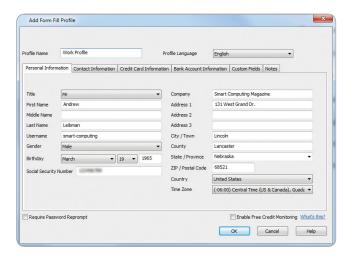
ways that cyber criminals can get your online usernames and passwords, but password managers can help thwart the vast majority of them.

#### Beat The Breaches

It seems like every month another high-profile security breach results in hackers making off with the credit card details, passwords, and financial data of millions of unwitting users. Recently, the popular social networking site LinkedIn announced the potential exposure of 8 million account holder passwords that were encoded but exposed. Hackers quickly got to work decoding them and managed to uncover many of them, even those that contained number/letter substitutions. combination of capital and lowercase characters, punctuation, and uncommon words. In fact, many experts believe passwords that use these tricks are relatively easy for advanced password cracking software and hardware to solve.

The best passwords are truly random, and even those are better if they're longer, between 15 and 20 characters or more. Most password managers include built-in password generators, and because the password manager can remember the password for you, you won't need to.

Having created one strong password, now do it again for each and every service you use. One of the harsh realities we must face is that there's no such thing as a perfect password. All it takes to crack practically any password is



Password managers can fill out forms to make online shopping easier and safer.



Password managers step in to input the username and password whenever you are asked to verify your online identity.

a hacker with the right tools and some time. It's best to start by creating multiple strong passwords, a different one for every site or service you use. This ensures that

even if your encrypted password gets exposed, the hackers will only have access to one aspect of your online identity, limiting the damage that can be done. Pass-



On-screen keyboards like this one can help thwart keylogging malware.

### Personal Technology

word managers can help you keep track of the dozen or more passwords you'll need to maintain. Again, with a password manager, the only password you'll actually need to remember is the master password.

### **Bonus Security** Features

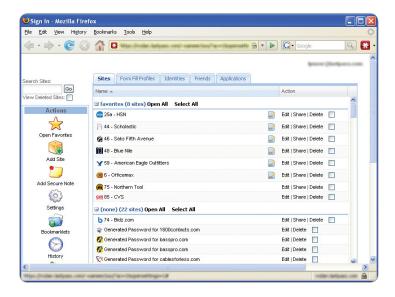
All password managers worth using automate the logon process for your online services and websites. Some offer a selection of security features that are not directly related to this core function, but are nice to have. One that we like is a virtual keyboard, which is a way to thwart keylogging malware. If you're the forgetful type, then look for a password manager that automatically reminds you to change your passwords. The forgetful among us should also look for a password manager that provides master password hints. (Some managers exclude this feature in an attempt to make the software more secure.) Most password managers support 256-bit AES encryption, so use this as a minimum requirement, especially if your passwords protect particularly sensitive data,



Many password managers also work on your mobile devices.



Password generators can help you create strong passwords for every site or service you use.



Password managers that sync online let you quickly access your secure logons no matter where you are.

such as business, medical, or financial records.

If you want to use a password manager on a computer or device to which multiple people have access, then make sure you get one that automatically logs you out of the password manager after a period of inactivity or once a set interval has passed. If your password manager lacks this feature, then get into the habit of logging out of it when you're stepping away from the computer or device.

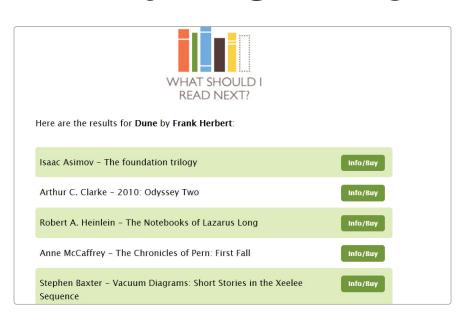
Because you don't just use desktops and notebooks to access the Web, look for robust mobile device support, including support for smartphones and tablets. If you have an Android phone and an iPad, for instance, make sure the software supports both platforms. Many will also run from a flash drive, so you can simply plug the drive into a USB port on a public computer to access your sites without leaving a trace on the computer. If you use a biometric device on your desktop or notebook, look for password managers that support biometric input.

### Choosing The Right Password Manager

To find the password manager that best suits your needs, compare features across multiple titles and develop your own list of the musthaves. Given the variety of password managers available, we think you'll have no trouble finding the right one.



### Find It Online



#### What Should I Read Next?

www.whatshouldireadnext.com

This website is ideal for people whose reading list has run dry. Just visit www.whatshouldireadnext.com and type the title or author of a book you enjoy to see a list of matches that would be a good fit. Most of our test searches delivered well over 50 options, so it's likely you'll find something in a similar genre that you haven't read. What Should I Read Next also provides links that allow you to read a synopsis and purchase the book from an online vendor.

### Zoho Viewer

https://viewer.zoho.com

This online service makes it easy to share documents with friends and colleagues. No need to attach the file to an email or provide them with a flash drive. Just visit https://viewer.zoho.com, upload your file, and provide the URL to your friends. The Zoho Viewer service is also handy for those who want an easy way to link to documents in a blog or forum post. Supported files include most Microsoft Office (Word, Excel, PowerPoint), OpenDocument, and OpenOffice formats. Others include PDF, HMTL, CSV, and TSV. No signup is required to use Zoho Viewer.

#### PixIr

http://pixlr.com

PixIr is a website (http://pixIr. com) that you can use to edit your digital photos. And because it's online, there's no software to download, and you can use it on any device with an Web connection. The advanced image-editing tools are particularly helpful for portable devices, such as tablets or smartphones, where built-in image-editing capabilities may be limited. Pixlr offers several apps for both Android and iOS devices. Pixlr can open images stored on your computer, from a specific URL, and from other online libraries, including Facebook. You'll be able to choose from a huge selection of effects and filters to add an artsy look to your images.

### Get.tt

ge.tt

Need to deliver files that may be larger than the maximum attachment-size limit on your (or a recipient's) email client? Ge.tt (ge. tt) is an online service that allows you to send all types of files, including documents, videos, music, and images. It works with all popular browsers, and you don't have to register for any accounts. However, when you do register for a free account, you'll enjoy access to 2GB of storage, with data kept for an unlimited amount of time. Sharing the files you upload is simple. Just select the file to mail and enter the recipient's email address. You can also share files via Facebook and Twitter.

### Jotti

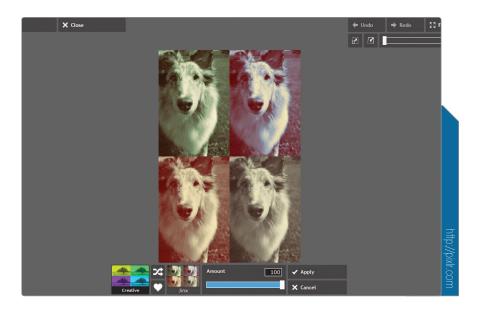
http://virusscan.jotti.org

Jotti (http://virusscan.jotti.org) is a free malware scan service that allows you to upload a suspicious file and have it scanned by a variety of security software applications. In our tests, the file was scanned by 19 different security utilities, including AVG, ESET, F-Secure, G DATA, Kaspersky, and Panda Security. Jotti limits you to 25MB per file, which should be large enough for most documents, images, and music files. Jotti's service is ideal for email attachments and other files that you suspect of being malicious.

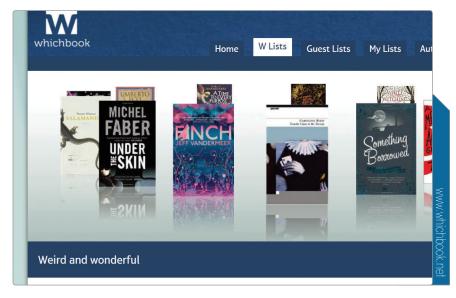
### Whichbook

www.whichbook.net

Whichbook (<u>www.whichbook.net</u>) takes a different approach to helping you select a book you'd enjoy, allowing you to select four or more basic choices (such as Funny or Serious, Larger Than Life or Down To Earth, Easy or Demanding, and Short or Long) to narrow down the list. The website also offers premade lists designed to fit a theme or mood. For example, we found premade lists for Rainy Day Reads, Quirky And Quizzical, and Food For Thought. You can also create your own lists and save them to Whichbook.







### Increase Ink Yields

### Get More Pages From Your Printer



ne of the most important aspects of any inkjet printer you purchase and use is the average number of printed pages the ink cartridges will produce. This average, or ink yield, plays the biggest role in your overall cost per page. Considering that ink cartridges can cost \$40 or more, prolonging the life of those ink cartridges is a great way to get more for your money.

### Before You Buy

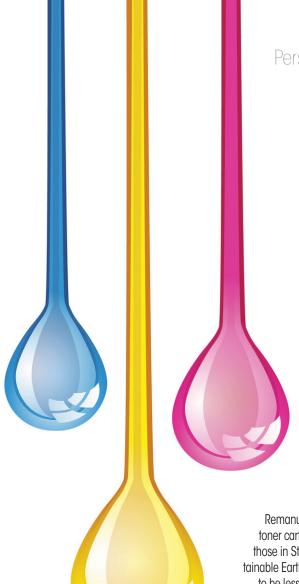
When you're comparison-shopping printers, look for models that list ink yields among the specs. Ink yields that conform to ISO (International Organization for Standardization) rules can be readily compared, but those that do not may report a number of pages based on a percentage of the page covered with ink. It's easy to compare ISO yields across printers, but if one manufacturer doesn't adhere, then you can't make fair comparisons between it and those that do.

While ink yield figures can help you compare different printers, don't expect them to reflect actual output. Your results will vary depending on the type of printing you do. For instance, if you go through a lot of high-density text prints, your black cartridge may not live up to the expected yields. Similarly, photo printers that print a lot of monochrome cityscapes may outlast the expected yields, but printing bright, colorful images will drain the color cartridges more quickly.

### Laser Printers & Toner Yields

ompanies and individuals who do high-volume printing tend to rely on laser printers, and many of the tips in this article apply to them and the folks who use them. To boost the toner yields of a laser printer, try the following:

- Lower the resolution of text and images for unimportant print jobs
- Use high-yield toner cartridges
- Buy toner in bulk
- Buy remanufactured toner cartridges (but again, be sure that the print quality is acceptable)



Personal Technology



High-yield ink cartridges, like this one for Brother printers, can slash your cost per printed page.

Remanufacturered toner cartridges, like those in Staple's Sustainable Earth line, tend to be less expensive than buying new.



Another thing to look for in a new printer is support for a Draft or Economy mode, which uses significantly less ink and results in fairly legible text and pale images. These prints aren't suitable for situations where image quality and text clarity are a major concern, but they are good for minor jobs, rough drafts, and pages you plan to recycle in short order.

You're accustomed to comparing the prices of the printers you buy, but don't forget to price the replacement cartridges as well. Printers that support the use of high-capacity cartridges can also save you money in the long run.

#### Ink Stretchers

As it happens, there are a handful of things you can do to cut the cost of printing with your existing printer. Printing most of your jobs in monochrome will extend the life of the more expensive color cartridges. Instead of printing a Web page, copy the text and paste it into a text document to eliminate the ink that would be spent printing banners and advertisements.

As noted, if your printer supports a Draft or Economy mode, use it for unimportant print jobs. If your printer model doesn't support this mode, consult your manual or explore the printer preferences for options that let you eliminate images from the

printed documents or reduce the resolution of images and text. Don't forget to manually raise the resolution for important print jobs.

Another way to slash the cost of expensive ink is to buy cartridges in bulk; unused ink cartridges do have a long shelf life. Third-party inks and refilled or remanufactured ink cartridges can also save you money, but make sure that using them doesn't void your printer's warranty. Also, pay close attention to the quality of the prints these inks produce, because not all 3rd-party inks or cartridges are created equal. If image quality is particularly important to you, the extra cost for name-brand ink might be worth it.

### Maintenance Basics

### Free Up Hard Drive Space



Free up space by backing up some of your larger personal files to disc and then deleting the data from your PC.

omputer applications and operating systems can be messy creatures. Each time you start them, they leave behind a few small files that are a partial record of the work you've done. The leftover files allow the operating system to reference the data to deliver faster performance the next time it performs the same task. In addition, your PC's storage devices

are also likely cluttered with "temporary" files that are created during a program's installation or removal process. When these orphaned files begin to accumulate, you'll have less storage space than you used to. Even worse, those junk files can slow down a hard drive (but not an SSD, or solid state drive), because it will become more difficult for a hard drive to locate specific data

requested by your computer. Here, we'll cover the maintenance tasks you can perform to clean up a PC's hard drive or SSD.

### Disk Cleanup

This is a utility that's built into virtually all of Windows editions since XP, and it's designed to help you get rid of files that are likely no longer necessary. Disk Cleanup



### lech Support

searches the common areas where files build up in your computer, including Downloaded Program Files, Temporary Internet Files, and the Recycle Bin. To run Disk Cleanup in Windows 7, type Disk Cleanup into the Search field, and select Disk Cleanup. Windows 7 will then analyze the files on your PC and let you select the files you want to delete. Select the types of file you want to remove and click the OK button; this brings up a window that asks Are You Sure You Want To Permanently Delete These Files? Click Delete Files to finish the process.

For those running Windows 8, you can type Disk Cleanup and select it from the Search options. The utility will scan the drive and generate a Files To Do Delete list, which is a categorized inventory of the junk files



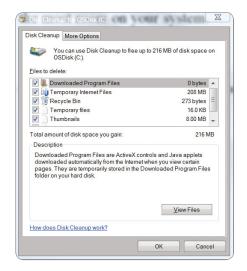
Disk Cleanup starts by scanning your PC to see how much space it can save you.

on your PC. To select or deselect a category, click the checkbox next to the listed option. Once you've selected all the files you want to remove, click OK. Then, select Delete Files from the Disk Cleanup window.

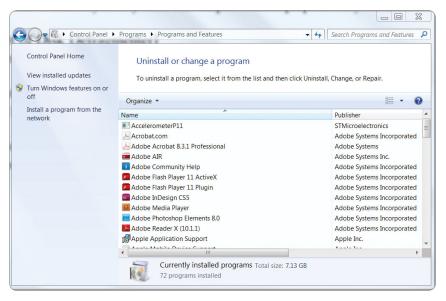
### Uninstall Programs

In a bind for storage space on a PC? One of the easiest ways to free up capacity is by uninstalling applications you no longer use. To see a list of applications on your computer in Windows 7, click the Start button, select Control Panel, and choose Uninstall A Program under the Programs section. Scroll through the list of application to see if there are any programs that you can delete to free up space. When you find one, select it and click the Uninstall button.

There are two ways to remove applications in Windows 8. For programs that run in the Modern UI, right-click the application you want to delete and a check will appear on it. Select the Uninstall option at the bottom of the screen. For applications that operate in the Windows Explorer view, open Windows Explorer, select Computer, and ensure the ribbon is maximized. Next, se-



Once it finishes scanning, Disk Cleanup will break down the files into categories, so you can quickly select what you want to delete.



You can quickly gain storage space by uninstalling programs that you no longer use.



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Sort through your emails and get rid of those with extralarge attachments, if you no longer need the data.

lect Open Control Panel from the File menu and choose Uninstall A Program. Choose the application you want to delete, and click the Uninstall/Change button.

### Back Up & Remove Old Files

Do you have a large collection of digital images to which you no longer need regular access? If your personal files are taking up too much space on your PC, consider investing in an external hard drive, and then transfer that data to the external drive as a convenient backup that you can access whenever you need to open the files. If your computer features a DVD or Blu-ray burner, you could also burn the files to disc. You may even want to back up your most treasured files to both an external hard drive and disc, so you'll have a backup copy even if the other gets lost or fails. Once you've backed up the data, you can then delete it from your PC's hard drive-knowing that the data is safely stored on the external hard drive or disc.

### Delete Duplicate Files

Over the years, you may have downloaded or created multiples of many files on your computer. For example, we recently found a large collection of duplicate images that we'd copied into a folder on our Desktop, so we could easily transfer them to a flash drive. The 20MB folder no longer served any purpose,

but we'd forgotten to delete the duplicate copy after transferring the data. Examine your PC's folders for extra copies that may be occupying valuable hard drive space. Some third-party utilities will find and list duplicate files for you.

### **Email Attachments**

If your friends, colleagues, and clients send you emails with large attachments that you save elsewhere, it may no longer be necessary to save the original emails—or at least not the attachments that accompanied them. Most email clients offer a way to sort your emails by size, so you can quickly determine which ones are taking up the most room on your system.



In Windows 8's Modern UI, you can uninstall an application by right-clicking it and selecting the Uninstall option at the bottom of the screen.



## Your System Freezes



time your system locks up, your work is at risk, but freezing doesn't always have to end in catastrophe. We'll help you understand how to work through and recover from these issues.

### General Tips

What at first looks like a freeze may just be slow processing. When in the middle of resource-intensive activities, such as editing video, burning a DVD, or copying large files, many applications and machines may appear to hang. Don't start forcing anything to close or shut anything down until you're certain it's not just taking a long time to complete

As always, protect yourself against inevitable freezes and crashes by saving early and often. Schedule and confirm regular backups of important data. Don't let hardware or software problems linger-troubleshoot and repair/replace as soon as feasible. Use antivirus and antispyware tools to protect your system from malware.

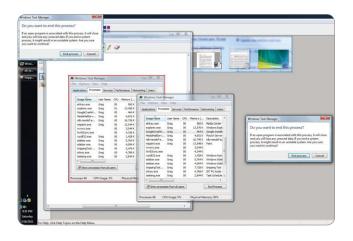
### Program Freezes

Many applications feature some sort of moving progress indicators to let you know they're still working, but not all applications have these, and they don't always work correctly. When you think your program is frozen, use your mouse to try switching applications. Sometimes working on something else gives the boggeddown application time to recover.

If switching to other applications doesn't work, or if the mouse isn't responding, press ALT-TAB to display all of the currently open windows. Press TAB repeatedly while holding ALT to rotate through them. Simply release both keys when you reach the application you want. Switching out to another open program, either for just a moment or for a longer period, can help determine whether the application in question is responding.

If nothing else is open or if your system isn't responding to ALT-TAB, press WINDOWS-M to minimize all open applications, returning your screen to the Windows Desktop. Sometimes, this reveals a dialog box or warning message hidden beneath other open windows.

The next step is to try relaunching the offending application or opening another instance of it. It won't always work, but sometimes this nudges the system into reactivating



Pressing ALT-TAB may let you switch among open applications in an attempt to avoid the one that's not responding.

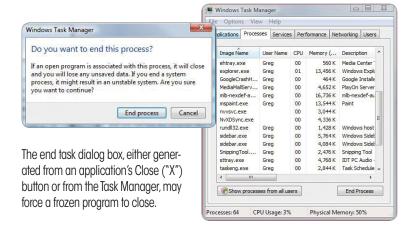
the first open window in that program or, at the very least, lets you complete your activity within a different session.

If nothing you do induces the application to respond, click the "X" button at the top right corner. The program may take a minute or two to close, or generate a "Not Responding" message. If you've exhausted all other options, force the application to close by clicking End Task (or similar).

If ending a program this way doesn't work, you'll have to go to the Task Manager by right-clicking the Taskbar and selecting Start Task Manager from the context menu or by pressing CTRL-ALT-DELETE and clicking Start Task Manager from the on-screen menu. Start with the Applications tab. Locate the program in guestion and click End Task. If that doesn't do anything after a few minutes, navigate to the Processes tab. When you find the culprit, select it and click End Process at the bottom right. Confirm any warning messages with another End Process selection. This should bring a quick end to any application that's stopped responding, but it doesn't mean your system is back to normal. At this point, it's a good idea to reboot before trying to run the application again.

### System Freezes

Full system-wide freezes can be a little more difficult to figure out. For one thing, it's hard to identify a single application or process at fault if you're multitasking when things go awry. It's also harder (by definition) to navigate and investigate when nothing is responding, including Windows itself. Start by looking for signs of life that might indicate the system is processing and not frozen. Good indicators include flashing activity lights, the whir of a churning hard drive, or indicator icons and bars that move only infrequently. If it looks like things might actually be moving, wait a little longer.



The Windows Task Manager provides detailed access to all open applications and processes, providing access to a forced End Process or Log Off option.

### After The Thaw: Recover From A Freeze

System frozen? Try these steps to quickly get your system back up and running again.

Reboot. Even after closing an application, your memory or other processes may have become corrupted. Be safe and restart the system.

Safe Mode. If you shut down the system without using the Windows Shutdown option, boot up in Safe Mode. Windows will often prompt you after a system crash, or you can press F8 during the boot process for a menu with the option to boot into Safe Mode. Then just restart the system before proceeding.

Recover data. If you had to close out in the midst of working on something, your in-progress data may be lost.

But you may be able to recover at least part of your files. Microsoft Office will often AutoRecover documents after a crash, and temporary or archived files may provide some assistance.

Watch out. Keep a close eye on the system's performance and your usage for a while, so that if a freeze recurs, you can detect a pattern and, hopefully, identify the cause.

Save early, save often. Freezes can happen at any time, without warning. Make a habit of saving your work regularly. Don't forget to schedule and verify regular system backups, as well.



After a freeze, boot back up into Safe Mode before restarting normally.

When signs of life cease, or when you run out of patience, try a few simple navigational tricks. Use the ALT-TAB shortcut as previously described to see if anything happens. Try other keyboard shortcuts such as WINDOWS-M (minimize all) or WINDOWS-D (show the Desktop). Disconnect and reconnect your mouse and keyboard. You can also try removing peripherals not in use, such as portable drives, printers, or other devices. Try removing any recently added hardware. USB drives,

especially older ones, are notorious for creating resource conflicts that can bring a system to its knees.

If the system is still not responding, you're left with little choice but to shut it down. Take the gentle route first. Press CTRL-ALT-DELETE and see if you can get to a Log Off or Task Manager window. Or try to get to the Start menu with its shutdown options, either via the mouse or by pressing the WIN-DOWS key. Next, press ALT-F4 to close the currently active application or shut down the system. If your machine has Shutdown, Standby, or Restart keyboard buttons (as many notebooks do), try using them. Additionally, many desktop cases have a Restart button built into the front. Finally, if nothing else works, press and hold the Power button to shut the machine down. Avoid pulling the plug or removing the battery if at all possible.

The CTRL-ALT-DELETE keyboard shortcut may not work when the system freezes, but it's worth a try before shutting everything down.



### Tips From The Help Desk

Common Tech Questions

```
A disk check has been scheduled.
Windows will now check the disk.

CHKDSK is verifying files (stage 1 of 5)...
52608 file records processed.
File verification completed.
54 large file records processed.
0 bad file records processed.
2 EA records processed.
60 reparse records processed.
CHKDSK is verifying indexes (stage 2 of 5)...
191640 index entries processed.
Index verification completed.
5 unindexed files processed.
CHKDSK is verifying security descriptors (stage 3 of 5)...
52608 security descriptors processed.
Security descriptor verification completed.
7974 data files processed.
CHKDSK is verifying Usn Journal...
27963824 USN bytes processed.
Usn Journal verification completed.
CHKDSK is verifying file data (stage 4 of 5)...
```

Windows' error-checking utility will examine your hard drive and report any problems it finds.

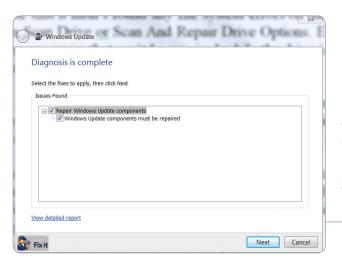
My computer sometimes delivers a "disk not found" error. Is there anything I can do to fix the hard drive?

After a few years of use, a hard drive may develop bad sectors, which means it may be physically damaged. Windows includes an Error Checking utility to discover the bad sectors, so that the system knows to avoid them. To run Error Checking in Windows 7, click the Start button, select Computer, and right-click the hard drive you want to check for bad sectors. Click Properties, select the Tools tab, and click the Check Now but-

ton under Error-Checking. In the pop-up window, place checkmarks next to Automatically Fix File System Errors and Scan For And Attempt Recovery Of Bad Sectors. Click Start and Windows will indicate that it can't check the disk for errors while it's in use. Select Schedule Disk Check to run it the next time the computer reboots. Depending on the size and amount of data stored on your hard drive, the scan my take some time. On our system it took an hour and a half. When it's finished, it will tell you if there are any bad sectors and if it fixed any errors.

We found that the process is similar in Windows 8. You can load the utility by opening Computer, right-clicking

After a few years of use, a hard drive may develop bad sectors, which means it may be physically damaged. Windows includes an Error Checking utility to discover the bad sectors, so that the system knows to avoid them.



Windows' updating process is far from foolproof. If you start having repeated trouble with updates, download and run Microsoft's Windows Fix It utility.

the hard drive you want to scan, and selecting Properties. In the drive properties window, select the Tools menu and click the Check Now button. Windows 8 will run a quick scan and may indicate that it hasn't found any file system errors on this drive. You'll then need to choose between Scan Drive or Scan And Repair Drive Options. Either way, you'll need to restart the PC if there are errors that can't be repaired while the drive is in use. Select one; when finished, you'll be able to review a general report of the drive.

When I try to shut down my computer, Windows repeatedly attempts to install the same updates. When the system reboots, I check for my update list and it indicates that they haven't been installed yet. Is there something wrong with Windows Update?

The Windows Update process isn't always a perfect patch. This is especially true if the update is corrupted or if something interrupts an update while it's installing. Fortunately, Microsoft offers a Windows Update Fix It utility that scans the updates for problems. This way, you won't have to worry about missing updates or waiting for the same updates to install each time you shut down the PC. You can download the utility by visiting http://support.microsoft.com/mats/windows\_update/ and clicking the Run Now button. Follow the on-screen prompts to fix the Windows Update issue.

My HDTV and Blu-ray player indicate that they are DLNA Certified. What does that mean and how do Luse it?



Your DLNA-certified HDTV or Blu-ray player can access media files stored on devices that are connected to your home network, including your computer itself.



A HomeGroup simplifies the process of sharing images, songs, movies, documents, and printers on your PC. A HomeGroup is a single place from which other Windows computers on your network can access your files and share theirs.

DLNA is short for Digital Living Network Alliance, and the group's goal is to make digital media accessible on a variety of devices. DLNA Certified means that your HDTV or Blu-ray player can access the media files stored on devices that are connected to your home network—assuming that the HDTV or Blu-ray player is also connected to the network. Therefore, you won't need to hook up your PC to the HDTV to play a home video you've recently created, because you could simply search for the file on your local network. The other key is that whichever files you want to play on your home theater are shared on your PC (or tablet, smartphone, or other DLNA-certified device). All DLNA devices are compatible with each other right out of the box, so you won't need to perform any complex setup to get them to work together.

To share files from a Windows 7 PC, select the uparrow icon near the right-hand corner of the Desktop, right-click the Home Network icon in the pop-up options display, and click the Open Network And Sharing Center. Select Choose HomeGroup And Sharing Options and select Share Libraries And Printers under the Share Media With Devices. Then, select Choose Media Streaming Options and ensure that all of your

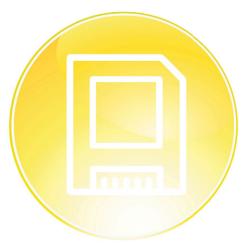
DLNA devices are "Allowed." Click OK to proceed. To stream video or music to a DLNA device, just open Windows Media Player, click Stream, and select "Allow Remote Control Of My Player" and "Automatically Allow Devices To Play My Media" and then press Next.

When I first connected to the Internet on my new computer, it asked me to set up a HomeGroup. What is a HomeGroup?

HomeGroup was one of the new features Microsoft added in Windows 7, and it's also found in Windows 8. A HomeGroup is designed to simplify the process of sharing images, songs, movies, documents, and printers on your PC. When you first set up your network connection, you'll create a HomeGroup, which is a single place from which other Win7 and Win8 computers on your local network can access your files and share their files. Thus, you'll no longer need to search the network or double-click a PC to remotely access the files, and you can view files from several Win7 computers at the same time. In short, all of the shared content from all your PCs can be found in the HomeGroup.

HomeGroup was one of the new features Microsoft added in Windows 7, and it's also found in Windows 8. A HomeGroup is designed to simplify the process of sharing images, songs, movies, documents, and printers on your PC.

# Troubleshooting Reference:



PROBLEMS WITH YOUR PC'S MEMORY, OR RAM (Random Access Memory), can result in a variety of issues, including seemingly random freezes, crashes, and system errors. When you're seeing these types of issues, there are no obvious error messages that indicate something is wrong with the memory in your computer. Here, we'll show you how to discover if your RAM is the problem and give you some ways to fix it.

### Is It A Memory Issue?

The most common manifestations of RAM problems are operating system crashes or applications that hang or won't respond. If you're experiencing these issues, try running an antivirus scan with your security software just to be safe, because a virus can cause similar symptoms.

### Memory Analysis

Windows 7 includes the Windows Memory Diagnostics Tool, which will help you detect problems with your computer's RAM;. To manually run the utility, click the Start button, select Control Panel, and type memory into the search box. Select Diagnose Your Computer's Memory Problems under Administrative Tools, and you'll see two options. You can choose to have Windows restart right now and check the memory, or you can tell it to wait until the next time you reboot your PC.

If the Windows Memory Diagnostic finds errors, you'll see a pop-up that tells you where the memory failed. In this case, you'll likely need to replace the memory to fix the problem. If the utility detects no errors, no message will be displayed and Windows will go ahead and load your Desktop.

### Quick Fix

Nearly all PCs contain more than one memory module. It's possible that only one of the sticks of RAM is causing the problem, so try removing one and see if that fixes the issue. Continue switching out the memory until you find the memory stick that's causing the problem.

Some memory errors can occur when the modules are not securely placed in the socket. Therefore it's a good idea to occasionally open up your case and ensure that each stick is securely seated in its slot.

When your PC's memory is causing problems, you'll need the following things to get it fixed up.

- Phillips-head screw driver to remove side panel or laptop panel
- A functional, up-to-date copy of Windows 7
- Users manual for your computer

# Troubleshooting Reference:

### DIGITAL CAMERAS



WE'VE COME TO RELY ON DIGITAL CAMERAS to capture the special moments in our lives. And if you miss a moment because your camera isn't working or produces poor-quality images, it can be frustrating. Here, we'll provide some quick tips for resolving a few of the most common issues.

### Clean Off The Lens

So you've just snapped a few photos of the family dog, only to find that most of them have been ruined because a certain pooch left his noseprints on the lens. The same problem can occur if dust builds up or when you accidentally touch the lens with your finger. Breathing across the lens and wiping it off with a soft, micro-

fiber cloth will remove most marks. For stubborn fingerprint oils, you may need to use a lens cleaner. Lenses typically have special coatings, so you'll want to avoid any household cleaning products that could mar the coating.

### **Battery Life**

When you first got your digital camera, the battery lasted for several hours before it needed to be recharged. But over time, a battery wears out; eventually, it may only give you enough juice for a few shots. If you're experiencing this problem, you'll likely need to invest in a new battery. If you see a white flaky material on the old battery, it's likely that it was leaking and that residual acid has corroded the con-

tacts. You'll need to clean the contact pads with a brush and fine sandpaper before you install a new battery.

### Shots Are Dark Or Off-Color

Many point-and-shoot cameras use small image sensors that have trouble gathering enough light in low-light environments. You may be able to compensate by switching to a shooting mode in which the camera opens the shutter for a longer period of time, but then the camera must be held steady to avoid blur. It may be easier to move the subject to a location where there is more light, or to better illuminate the scene by adding more light with a flash or by opening a curtain.

### Prevention

Digital cameras are fairly durable devices, but you'll want to keep them away from liquid, sand, and dirt. Liquid can short out the internal circuitry, while sand and dirt can scratch the lens and other parts inside the camera. The internal circuitry and glass lens (and internal mirror, if your camera has one) can also be damaged if you drop the camera, so remember to keep the neck strap on while using it.

### Fix-It Checklist

Here are the tools you'll need when troubleshooting a digital camera.

- Microfiber cloth
- √ Fine sandpaper
- ✓ Lens-cleaning solution
- √ Backup batteries

✓ Soft brush

# Troubleshooting Reference:

### NETWORKIR



A down, slow, or unreliable network can lead to significant downtime and frustration. Here, we'll help you troubleshoot a few of the most common network problems.

### Try The Power Cycle

When it comes to the physical network, there are two devices that can possibly fail: the router and the modem. Both have simple fixes. Turn them off, wait ten seconds or so, and turn them back on again. This "power cycling" will resolve many network issues. For example, the router may have had a problem renewing its IP address or releasing new IP addresses for the computers on your network. Restarting the router or modem resets

the device's software, often solving these sorts of problems.

### Examine Your Network Adapter

If that didn't solve the issue, check the PC's network adapter. The Network Diagnostic utility built into Windows 7 can renew your computer's IP address and ensure that the network adapter is enabled. To run Network Diagnostic in Windows 7, click the Start orb, select Control Panel, choose Network And Internet, and select Network And Sharing Center. Under View Your Active Networks, select the link next to Connections and click the Diagnose button. Windows will run a few tests to try and fix the problem.

### Weak Wireless Signal

Watch out for nearby devices such as microwaves, Bluetooth devices, baby monitors, and phones, all of which can cause interference in the signal. Move your router someplace where it's less likely to experience interference.

### Intermittent Connection

You'll want to check the physical connections to your router to see if all the cords are securely connected. A loose connection may explain why the Web drops intermittently. It's possible that the cable may have a cut or kink that causes a fault in the connection. Try replacing the Ethernet cable.

### Prevention

Wireless signal interference will typically be worse if the device causing the problem is close to the router. Try moving your router or PC to a different location, where the interference will have less of an effect. (And see "Troubleshooting Reference: Wi-Fi Connection" in this section for more information.)

### Fix-It Checklist

Here are the tools you'll need when troubleshooting your network.

- ✓ Extra Ethernet cable to replace bad or kinked cable
- Unused outlets for alternative locations to place wireless router
- ✓ Users manuals for routers and other networking equipment

# Troubleshooting Reference:

### WI-FI CONNECTION



INTERNET CONNECTIVITY HAS BECOME synonymous with "smart" when it comes to consumer electronics and appliances. But if your Wi-Fi connection goes down, you might have a hard time adjusting to a Blu-ray player that just plays Blu-ray Discs, a phone that only makes phone calls, and a tablet that just plays games. Follow these Wi-Fi connection troubleshooting tips to "smarten up" your favorite gadgets.

### Device Fails To Detect A Wi-Fi Network

The first thing you should do is find another Wi-Fi-capable device and attempt to connect to the Wi-Fi network. If the second device also cannot locate the SSID (Service Set Identi-

fier), or Wi-Fi network name, then turn your attention to the wireless router. Most routers have LEDs that indicate connection status, so consult your manual and determine if the router appears to be operating normally. The manual also provides instructions for accessing the configuration menu, so check this to make sure you actually have a wireless network up and running. Reset your security password if necessary. Make sure that your router is configured to broadcast the SSID, at least while you're troubleshooting. (You may wish to stop broadcasting once the problem is resolved.) Also, check the wired devices plugged into your router to determine if the router itself is malfunctioning. Finally, restart your PC and any device that has failed to connect to the wireless network. If the connectivity issue is isolated to a single device, disabling and re-enabling Wi-Fi may solve the problem.

### The Wi-Fi Network Is Working, But There's No Internet

You may need to reset your Internet connection. Unplug the wireless router and modem. Next, plug in the modem and wait ten to twenty seconds for the lights to come on and then plug in the router. If your modem has a battery backup, you may need to press a recessed button to reset it. Check all Ethernet cables for loose connections and then try to find your Wireless network with your Wi-Fi-based devices.

### Prevention

A Wi-Fi network requires little maintenance. If you regularly maintain your PC, modem, router, and wireless devices, the network should continue to operate flawlessly. You may experience speed fluctuations if there are too many devices or appliances nearby that operate on the same frequency; minimize this problem by keeping your wireless router and Wi-Fi devices away from cordless phones, microwaves, wireless game controllers, Bluetooth devices, and even fluorescent lights.

### Fix-It Checklist

It's helpful to have a few things on hand when your Wi-Fi network fails. Here's a short checklist that'll help you solve the problem.

- ✓ A spare device that supports Wi-Fi
- Manuals for your router and modem
- ✓ Spare Ethernet cables
- Wireless router or adapter driver discs
- Alternate Wi-Fi router
- ✓ USB Wi-Fi adapter

### New & Noteworthy

Here, you'll find an eclectic assortment of tech and office items that are both useful and interesting, fun and practical. All of these are available at your local Staples store or on the Staples website (www.staples.com). Face it, you need some of these things!



### PNY Clip-On Attaché

PNY's Clip-On Attaché (www3.pny.com) lets you safely and easily store, transport, and share your favorite documents, photos, music, videos, and more. The Clip-On Attaché is compatible with most PC and Mac computers that have USB 2.0 and 1.0 ports. Flash drives are more durable than other storage devices, offering high performance, low power consumption, and non-volatile flash memory. And this stylish Clip-On Attaché is available in multiple colors, so grab whichever one best complements your wardrobe—or just snag yourself two of them and you'll be ready for anything.

### Cocoon Grid-It! Organizer

Take charge of how you organize and store your mobile devices, gadgets, accessories, and personal items with the Cocoon Grid-It! Cocoon Innovations (www.cocooninnovations.com) claims its Grid-It! organizer is "the most versatile organization system available." The rubberized woven elastic retention system holds items firmly in place while you customize and reconfigure their placement. The gray 10.25 x 5.125-inch organizer panel also features a convenient pocket for additional storage.

#### Jabra DRIVE

When you must talk on your phone in the car, being safe is of utmost importance, so pair your phone with the Jabra DRIVE (www.jabra.com) Bluetooth in-car speakerphone. Jabra DRIVE delivers crystal-clear sound and voice, and features intuitive, one-touch operation. When you are not on a call, you can use the speakerphone to listen to music or podcasts from your phone or MP3 player, or you can transmit voiceguided directions via your phone's GPS. Setup is simple as well: The DRIVE's voice-guided voice-guided instructions help you connect with up to two Bluetooth devices.

#### The Smart Little Pouch

If being trendy is your thing, then let your sense of style extend to your camera case. The Smart Little Pouch from Acme Made San Francisco (www.acmemade.com) is "a practical and stylish way to protect your digital camera." The 4.2 x 2.5 x 1.2-inch (HxWxD) case is constructed of a form-fitting "wet" neoprene material and is available in a variety of designs. A soft inner lining protects your camera from scratches and the dual-zippered opening lets you get to your camera easily.

### Meet the new Windows.



Make it yours.

Put the people, apps, and stuff you love right on your Start screen



Multi-task.

Doing two things at once is a snap.



#### Go shopping.

Try thousands of amazing apps before you buy at the Windows Store



#### Store it and share it.

Your music, photos, and doci in the cloud with SkyDrive.



#### You choose.

Windows 8 works with touch screens or mouse and keyboard.



#### Browse with ease.

Internet Explorer 10 is fast, fluid, and perfect for touch.







# LAPTOP, TABLET AND EVERYTHING

### IN BETWEEN.











| Multi-touch Display | Windows® 8 | 500GB HDD | Lenovo® Solution for Small Business



#### ULTRABOOK™. INSPIRED BY INTEL®. POWERED BY INTEL® CORE™ i5 PROCESSOR.